NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

THE PRINCIPLES OF WAR RECONSIDERED

by

Volodymyr Orativskyi

June 2009

Thesis Advisor:	John Arquilla
Second Reader:	Robert L. O'Connell

Approved for public release; distribution is unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE		*Form Approved OMB No. 0704-0188*

1. AGENCY USE ONLY *(Leave blank)*	**2. REPORT DATE** June 2009	**3. REPORT TYPE AND DATES COVERED** Master's Thesis
4. TITLE AND SUBTITLE The Principles of War Reconsidered		**5. FUNDING NUMBERS**
6. AUTHOR(S) Volodymyr Orativskyi		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000		**8. PERFORMING ORGANIZATION REPORT NUMBER**
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A		**10. SPONSORING/MONITORING AGENCY REPORT NUMBER**
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.		
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited		**12b. DISTRIBUTION CODE** A

13. ABSTRACT (maximum 200 words)

Contemporary militaries in waging wars tend to rely on the fundamental principles of war. These principles have been defined during centuries of study, and they give the appearance of being undisputedly stable with the possibility of their application assumed to be ongoing. This view is deceptive. In fact, many famous strategists of the past have warned oncoming generations of warriors not to misuse these fundamentals; rather these principles need to be modified over time. The application of past principles is problematic for future wars as they have been shaped according to historical conditions, and need to be revaluated in terms of the present. Such principles can only give the basics for the creation of new or modified war-fighting concepts, and cannot be applied unthinkingly. This study analyzes the classical principles of war from the perspective of modern warfare in order to reconsider their meaning, significance, and applicability.

14. SUBJECT TERMS Principles of war, Information Age, military history, military doctrine, military strategy			**15. NUMBER OF PAGES** 143
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	**18. SECURITY CLASSIFICATION OF THIS PAGE** Unclassified	**19. SECURITY CLASSIFICATION OF ABSTRACT** Unclassified	**20. LIMITATION OF ABSTRACT** UU

i

THIS PAGE INTENTIONALLY LEFT BLANK

THE PRINCIPLES OF WAR RECONSIDERED

Volodymyr Orativskyi
Lieutenant Colonel, Security service of Ukraine
M.S., National Academy of Security service of Ukraine, 1997

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN DEFENSE ANALYSIS

from the

NAVAL POSTGRADUATE SCHOOL
June 2009

Author: Volodymyr Orativskyi

Approved by: John Arquilla
                 Thesis Advisor

                 Robert L. O'Connell
                 Second Reader

                 Gordon McCormick
                 Chairman, Department of Defense Analysis

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Contemporary militaries in waging wars tend to rely on the fundamental principles of war. These principles have been defined during centuries of study, and they give the appearance of being undisputedly stable with the possibility of their application assumed to be ongoing. This view is deceptive. In fact, many famous strategists of the past have warned oncoming generations of warriors not to misuse these fundamentals; rather these principles need to be modified over time. The application of past principles is problematic for future wars as they have been shaped according to historical conditions, and need to be revaluated in terms of the present. Such principles can only give the basics for the creation of new or modified war-fighting concepts, and cannot be applied unthinkingly. This study analyzes the classical principles of war from the perspective of modern warfare in order to reconsider their meaning, significance, and applicability.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

THIS PAGE INTENTIONALLY LEFT BLANK

I.   INTRODUCTION

A.   SCOPE AND PURPOSE

The scope of this study is to analyze the literature on the classical principles of war, the paradoxes of war, and the latest studies on the problem of formulating valid modern principles of war, in light of the fact that many have begun to question the validity of these earlier views.

When waging war, contemporary militaries tend to rely on the fundamental principles of war. These principles have been defined over centuries of study. They appear to be undisputedly stable, and great emphasis is placed upon the possibility of their application. This view is deceptive. In fact, many famous strategists of the past have warned future generations of warriors about the misuse these fundamentals, for these principles need to be modified over time. The application of past principles is problematic for future wars, as the principles have been shaped according to historical conditions and should be revaluated in terms of the present. Such principles can only present the basics for the creation of new or modified war-fighting concepts; they cannot be applied literally. This study analyzes the classical principles of war from the perspective of twenty-first century warfare in order to reconsider their meaning, significance, and applicability.

The purpose of the study is to evaluate the need to change or reconsider the classical principles of war in order to formulate modern military strategy and military doctrine in light of the transformation of warfare.

B.   METHODOLOGY

Classical military thought did not always consist of a checklist of principles of war. There existed the Art of War (not the Science) and the works of ancient, medieval, and nineteenth century military thinkers. These works have been mostly the sets of wisdom, based on experience and historical studies, until J.F.C. Fuller tried to 'found the

1

Science of war' and presented the first codification of the principles of war on the eve of WWI. The principles first became the part of British Field Regulations and were then added, in similar form, to military schoolbooks and modern field manuals. Military thought has significantly advanced through the analysis of the outstanding military campaigns or great wars. The purpose of the analysis was to prepare the successors for successful future warfare. However, the idea to formulate this particular set of principles came about after war became significantly more complicated.

This thesis is the heuristic analysis of the various existing principles of war, the factors that neglect them, make them relevant, or make them obsolete.

C.   ORGANIZATION

The nature of war changes; its structure and actors evolve. The changing environment influences the actors, and by increasing their capabilities, actors influence the environment. Throughout history, military theorists have tried to shape old sets of rules to fit the changing conditions of their contemporary times. This thesis is organized in five chapters, including the introduction and conclusion. The main emphasis of the thesis focuses on historical perspectives on the development of military thought in general, and on the indoctrination of the principles of war in particular. It will simultaneously reference a majority of the classical original works of great captains.

The second chapter will present the evolution of the principles of war. This chapter primarily focuses on the treatises on war from ancient times through the Napoleonic era, to the appearance of them as a full set of nine in the U.S. Army Field Service Regulations in 1949 and finally to their final form as the modern U.S. Doctrine of Joint Operations. The chapter is based upon the examination of the concepts of *Ssu-ma Fa*, Sun Tzu, Wu Tzu, Wei Lao-tzu, T'ai Kung, T'ai-tsung and Li Ching, Miyamoto Musashi, Vegetius, Maurice de Saxe, Frederick the Great, Napoleon Bonaparte, Antoine-Henry Jomini, Carl von Clausewitz, and John Frederick Charles Fuller. Although all of them lived and fought their own wars in different times and their concepts were influenced by their contemporary philosophy and science, the significance of their work upon modern military thought is still undisputed.

Summarizing the value of Eastern military wisdom, Liddell Hart names Sun Tzu one of the most influential military thinkers of the past: "In brief, Sun Tzu was the best short introduction to the study of warfare, and no less valuable for constant reference in extending study of the subject" (B. H. Liddell Hart, foreword to Samuel B. Griffith's translation of Sun Tzu's *The Art of War*, Oxford: University Press, 1963, p. vii). However, the ancient Chinese military thought was unknown for Europe until the late eighteenth century; therefore, Western military concepts found their origins in their own history. As John Alger pointed out, "Machiavelli's writings marked the beginning of nearly three centuries of military thought that was strongly influenced by classical thought, that reflected an interest in the search for principles, fundamentals, general rules, or any of the variety of synonyms used to define such basic concepts, and increasingly was influenced by technological growth and scientific inquiry" (Alger, *The Quest for Victory*, 1982, p. 7). Machiavelli was one of the first to present the historical projection of successful past wars and warriors onto contemporary ones.

A significant conceptual breakthrough in military thought was made by Jomini and Clausewitz at the junction of eighteenth and nineteenth centuries. Jomini tried to present his own epoch, the Napoleonic genius. He saw this time as the final stage of the military thought and presented it this way in his book. His position did not change through decades, but his 'mechanistic' approach to the study of war failed to fully explain the nature and role of the genius in war as he saw it in Napoleon. For Jomini, a genius was the best follower of the classical rules. He failed to understand that the genius is the person who creates new rules for his time. Jomini failed to see the multifaceted nature of war and mainly was focused on the military (combat) part of warfare, giving the most respect to his idol – Napoleon. Jomini failed to understand that Napoleon lost his achievements for two reasons. First, Napoleon only saw battle as a main purpose of the war, and war as the main means of his international policy. Secondly, upon victory, he did not pay enough attention to the diplomacy with the defeated side, and he could not establish long-lasting peace. The task for the genius was to create new rules, violate the old rules, and change the current rules. The genius was the one who won the war, which made him undefeated. What about the others? What do they need to do in order to win

3

the war? Should they follow the rules, which were introduced by the geniuses? If they do, everybody becomes equally capable, and the genius must disregard his own rules to win again. Sun Tzu asked military leaders to never repeat themselves in the battle, otherwise they becomes predictable and are no longer dangerous. Jominian perspective kept even the genius within the boundaries of his own successive rules. Jomini's set of principles of war made Napoleon undefeated in his early campaigns: "Jomini's conception of operations was in essence, then, a formal presentation of the Napoleonic art of war at its heydays, that was the source of its power but also of its limitations" (Gat, 1992, p. 121). In the late campaigns, "the powers of Europe, who for seventeen years experienced the destructiveness of the Napoleonic art of war, prepared their homework very careful" (Gat, 1992, p. 122). They knew what he was going to do, and successfully confronted his moves.

At this time, his contemporary, Clausewitz, saw that something was missing in Jomini's plain concept. Influenced by this doubt, Clausewitz looked to philosophy and history in his search for the missing elements of the system. His findings were the dual nature of war, trinity of war, and friction in war. By the introducing these concepts, he tried to shift the emphasis in the study of war from formulating eternal principles to its deeper understanding. The Clauswitzian trinity of government, military, and population introduced the human factor into the war. The friction in war, and the notion of chance, made the war real and distinguished it from the war on the paper. The dual nature of the war, both total and limited, widened the perspective of the issue. War became the protraction of policy. The fundamental principles of war became feasible only in battle, and that feasibility was further reduced by the growing complexity of combat.

The process of codifying of the first official list of the 'principles of war' was detailed by John Alger and Azar Gat. Although J.T.C. Fuller is considered the first person who made a clear list of short defined principles, which were originally taken from Napoleonic maxims that were interpreted by Jomini, the overall process of codification was a collective process, mostly done by British and U.S. military thinkers. Alger says in this regard:

The first official list of 'principles of war' appeared in Great Britain in 1920, and a kindred list followed in the United States in 1921. In most other countries, notably France and Germany, however, the formality of an official list was rejected throughout the 1920' and 1930' in spite of individuals in both countries who offered terse aphorisms as a basis for doctrine. The debate over the existence, benefit, and format of principles of war continued into the 1930s, but as the decade wore on, military minds turned increasingly from the ethereal concepts of principles to more practical theories manifested in Blitzkrieg and the Maginot mentality (Alger, *The Quest for Victory*, 1982, p. 145).

The third chapter of the thesis presents the transformation of the concept of the principles of war in the twentieth century. The canonizing of Napoleonic maxims in the beginning of the twentieth century led to the devastating stalemate of WWI. The outcomes of this war made European militaries, especially German, rethink their contemporary strategy and doctrine, acquire all the available knowledge and experience, and develop new approach to warfare. The *Blitzkrieg* doctrine gave new life to the Napoleonic concepts of maneuver warfare and to his principles of war.

The changes in the geopolitical situation in the aftermath of WWII and the rapid advance of technology have created new challenges for military thought. The possibility of nuclear war shifted the scale of warfare from high-intensity to low-intensity conflicts, which are an alternative form of war used to escape the escalation of a clash between world nuclear powers. The growth of military technology and its abundance in weaponry and delivery systems has introduced the new actor to the Clauswitzian trinity of war – the military industry. The deep involvement of civilians in military affairs also became a significant characteristic of warfare in the twentieth century. These developments sophisticated the relationship between political ends and military means. This complicated the application of the latter according to the classical principles. In some cases, the principles have not propelled us to military victory, but have constrained its fast and decisive achievement.

The rapid changes of the geopolitical environment and conditions for war has forced military thinkers to revisit and rethink the concepts of war both in general and in particular according the current conditions. The fourth chapter presents the main

characteristics of the process of reevaluating the principles of war in terms of alternative, indirect approaches to war. It also addresses the paradoxical logic of military strategy and the conditions of the Information Age.

The contemporary 'hi-tech' Information Age has made everything related to the information extremely vital. In their work, John Arquilla and David Ronfeldt stated: "For your forces, warfare is no longer primarily a function of who puts the most capital, labor and technology on the battlefield, but of who has the best information about the battlefield. What distinguishes the victors is their grasp of information—not only from the mundane standpoint of knowing how to find the enemy while keeping it in the dark, but also in doctrinal and organizational terms" ("Cyberwar is Coming!" *In Athena's Camp,* RAND, 1997). Domination in the informational domain has become decisive. At the same time, however, Michael Handel argues that, "once the conventional high-tech war is fought between technologically equal opponents, the pace and accuracy of the destructive power wielded with increase, but their advanced technological capabilities will not give either side any particular advantage." Moreover, Handel continues that the latest assumption that "the wars of the future will be waged with perfect or nearly perfect information and intelligence," and therefore "technologically advanced side, with flawless command, control, and communications, will always identify and hit targets with precision," in his opinion, is "chimera, because it implies that friction in war will be greatly reduced if not eliminated." Further, Handel concludes that "while the outward shape and material dimensions of war may shift continuously, the essence of war remains unchanged. War will thus remain a dynamic and reciprocal activity in which various advantages are gained and lost as both sides adapt to successive challenges" (Handel, *Masters of War*, 2001, p. xxvi).

Therefore, using the current, relatively temporary, state of things (balance of powers, levels of technological development, etc.) as a starting point for theoretical considerations does not seem right. A precise snap-shot of the contemporary environment in which the future wars are likely to happen, which appears unconditionally stable and long-lasting, does not allow us to fix to it the theoretical maxims of warfare. Therefore, things become complicated and confused, as far as "everything in war is very simple, but

the simplest thing is difficult" (Clausewitz). The principles of the New American 'Way of War' are speed, knowledge, jointness, and precision. Although they are very success-determining, they are also very 'current-time-and-situation' dependent and relevant. Therefore, 'to address the challenges of the current strategic environment more fully,' Antulio Echevarria argues that a contemporary military has two choices: "It can continue to debate the merits of its principles of operations, which may or may not result in their revision, reaffirmation, or even reinvention. Or it can develop a set of genuine principles of war and use them as a guide for understanding conflict in the twenty-first century holistically." 'Understanding the nature of war,' and 'understanding the nature of war at hand' requires using the set of objective (common, constant features: violence, friction, chance, uncertainty, fear) and subjective (military forces, doctrines, weapons – which vary from war to war, making all wars unique) natures of phenomena of war – as the "guidelines for thinking"… (McIvor (Ed), *Rethinking the Principles of War*, 2001, pp. 70-75).

The great strategists of the past: Sun Tzu, Machiavelli, Clausewitz, Jomini, and Fuller played a great role in formulating the military thought of their times. However, they also addressed the unlikelihood of successfully generalizing the principles of war in some modern context. Their main idea about the application of past military experience and doctrinal knowledge on the current events was that it is not advisable. They espoused the idea that the principles of war of the past can only be considered and not strictly followed. As each stage of warfare's development added certain elements of understanding to general military wisdom, the more diffuse and uncertain interpretations of basic fundamental principles of war have become. There has even been advice to not follow them at all, and instead find some alternative relative knowledge in other disciplines that would explain more precisely the dynamics of war. The Information Age, the globalization of the world economy, the technology of weapon systems, the dependence of every aspect of statecraft on each other, and the states as a whole global closed system have created extraordinarily complicated requirements for shaping military strategies.

From another perspective, the traditional approach to war still remains, to some extent, focused on one quick, decisive, and victorious battle. However, it has been proven historically that winning the battle doesn't necessarily mean winning the war. Even Clausewitz, with his rational calculus of war, stated that "in war result is never final." The related assumption to this statement can be that a final result is only possible in the case of the total annihilation of the counter-state army's, governmental institutions', and population's will. He stated that "even the final decision of a whole War is not always to be regarded as absolute. The conquered State often sees in it only a passing evil, which may be repaired in after times by means of political combinations. How much this must modify the degree of tension, and the vigour of the efforts made, is evident in itself" (Clausewitz, *On War*, 1984, p. 80). The situation concerned with the achievement of the objectives of war and war's end-states becomes more problematic if the war reaches a stalemate or becomes protracted. More complications arise if the original aim of it is overwhelming and unconditional victory, which excludes even the possibility of the negotiations, but "if the military victor does not offer the defeated adversary terms that are acceptable in the long run, the best that can be hoped for is something like a temporary cease-fire" (Handel, *Masters of War*, p. 198). The conclusion that Karl Popper made from Winston Churchill's famous quote – "Those who can win a war well can rarely make a good peace and those who could make a good peace would never have won the war" is paradoxically contradictory in its nature of 'competitive comparison of falsity contents': "Wars are never won but always lost" (Popper, *Objective Knowledge*, 1972, p. 81). Therefore the point of interpreting the main goals of the war, as the state's political mean and the implementation of the state's policy itself went far beyond just winning the single battle. The balance of world powers nowadays is shaped in a way that makes "big" battles unlikely, because the enemy simply doesn't want to face a stronger opponent in the open field.

The introduction in U.S. military literature of the terms *Military Operations Other Than War* in 1995 and *Joint Operations* in 2001 widened the perspective of military means in the rapidly evolving contemporary environment. Although the list of classical principles of war and their brief interpretations remain unchanged in the new Doctrine,

approaches to their practical application have changed significantly. For example, the introduction of three new principles – *restraint*, *perseverance*, and *legitimacy*; the 'new' types of armed conflicts and variety of crises' resolutions; the new terms of operational art as **"**the application of creative imagination by commanders and staffs — supported by their skill, knowledge, and experience — to design strategies, campaigns, and major operations and organize and employ military forces" (JP 3-0, p. 21); and the 'effects' as one of the elements of operational design, which are the "conditions necessary to achieve an associated military objective" (JP 3-0, p. 111) are signs of significant change in U.S. military theory.

The classical principles of war, on which U.S. and many other, military doctrines were built for more than one hundred years, cannot be simply dismissed. They must be carefully evaluated, adjusted, rethought, and reconsidered, for the entire military tradition relies upon them.

> Union General William Tecumseh Sherman knew that "war is hell" long before his blue-clad divisions blighted a fifty-mile-wide swath between Atlanta and Savannah, Georgia, on their march to the sea in November-December 1864. Woeful strategies make war even worse. The rigid Western Front that ran from Flanders to the Alps during World War I defied frontal assaults for more than four years. Millions died and millions more were maimed, because combat began for no sensible reason and terminated long after the best possible outcome was a Pyrrhic victory.
>
> Contemporary strategists can do better … if they select wisely from war-fighting principles, theories, policies, and concepts that cover every conceivable contingency from start to finish during low-, mid-, and high-intensity conflicts on land, at sea, in Earth's atmosphere, and in space. Open options variously emphasize eager or reluctant resort to armed conflict; offense or defense; maneuver or attrition; power projection or forward deployments; destruction or dislocation; instantaneous or incremental escalation; and few or many self-imposed limitations, including those that concern collateral damage and casualties, weapons of mass destruction, and covert or clandestine operations (John M. Collins, *Military Strategy: Principles, Practices, and Historical Perspectives*, Washington, D.C.: Brassey's Inc., 2002, p. 81).

THIS PAGE INTENTIONALLY LEFT BLANK

II. EVOLUTION OF A CONCEPT OF THE PRINCIPLES OF WAR

A. GENERAL CONSIDERATIONS

The mainstream of the military thought has evolved over centuries. The political, economical, and technological changes in civil societies have created new challenges for the military society and put it on a constant search for the winning framework, not only for the times of the past, but also for the future. The increasing complexity of the state's system, the development of science, foundation of new schools and tendencies in philosophy gave the military thinkers more broad and complex problems with which to deal. Social changes and technological innovations have made warfare a more strongly pronounced integral component of the statecraft. The whole notion of war remains guided by politics and state management's objectives. Pre-war and post-war issues are just as important as the actual war-fighting, therefore the complexity of the political stage in the form of war requires more attention to formulate the theoretical framework not only in terms of war study, but also in its execution – the principles of war.

> As these reflections grew more numerous and history more sophisticated, an urgent need arose for principles and rules whereby the controversies that are so normal in military history – the debate between conflicting opinions – could be brought to some sort of resolution. This maelstrom of opinions, lacking in basic principles and clear laws round which they could be crystallized, was bound to be intellectually repugnant (Clausewitz, *On War*, p. 134).

In his thoughtful study of the history of the principles of war, *The Quest for Victory*, John Alger pointed out:

> Many early military writers published extensive tomes on the practice of war, and their advice and observations on war were expressed in thousands of principles. On occasion, important concepts were included in brief lists, but no single list was advanced that purported to enumerate all or even the most important of the fundamental considerations in the conduct of war (John I. Alger, *The Quest for Victory: The History of the Principles of War,* Westport: Greenwood Press, 1982, p. 4).

From Alger's point of view, the single list of these principles, although their concept has been developing throughout the entire history of military thought, is to be their highest expression. It would be clear and self-sufficient easily accessed by military commanders for advice and direction. The list could be used to teach both military theory basics, and more in-depth in the study. Although the concept of these principles has varied through time in forms of axioms, rules, maxims, fundamentals, aphorisms, essences, and lessons, it still serves one particular purpose – to provide knowledge for the contemporary researchers from the perspective of existing knowledge and from the study of past theoretical and practical concepts. The military thinkers of the past regularly called their works 'principles,' but never actually presented a complete list (complete – as we have now nine of them, and twelve in the most updated doctrine). They left this task to their readers or successors. The great warriors of the past were quite contradictory and unable to formulate a set of absolute and time-resistant rules to follow in order to successfully conduct a war. This work was done mostly by historians and military teachers.

> Efforts were therefore made to equip the conduct of war with principles, rules, and even systems. This did present a positive goal, but people failed to take adequate account of the endless complexities involved. As we have seen, the conduct of war branches out in almost all directions and has no definite limits; while any system, any model, has the finite nature of a synthesis. An irreconcilable conflict exists between this type of theory and actual practice (Clausewitz, *On War*, p. 134).

The evolution of these concepts eventually developed into what we now know as 'the classical principles of war.' Alger described the appearance of the well-known and highly appreciated ***complete list*** of the 'classical principles of war':

> In 1936, the U.S. Army Command and General Staff College at Fort Leavenworth, Kansas, published a list of seven "principles of strategy," in substance identical to seven of the nine "principles of war" found in *Training Regulations*. In 1939, the staff college published the pamphlet, The Offensive, in which six "principles of war" appeared… and in 1949, the U.S. Army *Field Service Regulations*, at that time the most general doctrinal source in the U.S. Army, published a list of nine titles and explanations – again under the heading "principles of war"… (Alger, 1982, p. xxii).

But the formulation of these principles, and moreover, their interpretation was quite troublesome. Reducing military theory in its entirety to a fixed list of war principles missed their original time-relevant nature and required the creation of the scientific discipline to support their existence. The unsuccessful attempt to accomplish this work was done by J.F.C. Fuller in his book *The Foundations of the Science of War* (1926). With its origins in Napoleon's work, Fuller's book presented a flexible concept of the principles of war, their interacting nature, and their subordination to the single 'law,' for which his book was criticized. His concept of '*a* science of war' eventually failed (Fuller, *The Foundations of the Science of War*, Fort Leavenworth: The Command and General Staff College Press, 1993, pp. 13-4). One of his contemporaries wrote about *The Foundations* that "its evil outweighs its good because it has become the chief source of inspiration for those who create images of a science of war at which to worship" (Edward Atlas, quoted by Alger, 1982, p. 187). Fuller himself acknowledged afterwards that his admiration for the 'classical principles' had gone, as "for their purpose has been completely misunderstood, mainly because the military and naval literature which has arisen out of them (in the U.S.A. as well as here) has most successfully obscured their aim, use and value" (Fuller, quoted by Alger, 1982, p. 187). The absence of unity in military theory-related societies about how to appreciate the principles of war has caused this effect:

> To many, "principles" lay at the root, but "principles" conveyed different meanings. To some a principle was the law that demanded certain actions. To some it was prevailing condition that always led to success in war. To others it was a general truth, an element, or fundamental inherent in the nature of war, and to still others, a principle was a guide that could sometimes be violated but always had to be considered (Alger, 1982, p. 189).

Finally, in the concluding chapter of his *The Quest for Victory*, Alger summarizes his research and points out that:

> The 'principles of war' are firmly rooted in the military tradition of the United States and Great Britain. Neither the titles nor the explanations of the concepts behind the titles are immutable. Neither the titles nor their explanations are universally accepted. Neither the titles nor the explanations will guarantee success to anyone in the future war. The

question that must be asked is whether the 'principles' are benefit or detriment to those who prepare to fight a future war should it occur (Alger, 1982, p. 190).

But, considering war as one of the oldest businesses in the entire human history and taking into account the *eternal quest for victory*, let the study follow the almost millennia and a half old advice of Li Ching and the T'ai-sung –

> Thus the study of military strategy must be from the lowest to middle and then from the middle to highest, so that they will gradually penetrate the depths of the teaching. **If not, they will only be relying on empty words**. Merely remembering and reciting them is not enough to succeed…

> Military teachings should not be carelessly transmitted, yet should also be not transmitted. Please pay careful attention to this matter ("Questions and Replies between T'ang T'ai-tsung and Li Wei-kung," R.D. Sawyer (ed.), *The Seven Military Classics of the Ancient China*, 1993, p. 360, emphasis added),

– and according to Flavius Vegetius Renatus, the reformer of the Roman military in the fourth century A.D.:

> In former ages **the art of war, often neglected and forgotten**, was as often recovered from books and reestablished by the authority and attention of our generals (Vegetius, "The Military Institutions of the Romans," T.R. Phillips (ed.), *Roots of Strategy*, 1959, p. 149, emphasis added).

This study will go through a selected number of original works of the great warriors in history, in order to get *their* particular impression about *their* participation in the formulation of winning concepts of war. It will strive to avoid, whenever possible, the 'interpretations of interpreters':

> All sciences have principles and rules; war has none. The great captains who have written of it give us none. Extreme cleverness is required even to understand them. And it is impossible to base any judgment on the relations of the historians, for they only speak of war as their imaginations paint it. As for the great captains who have written of it, they have attempted rather to be interesting than instructive, since the mechanics of war is dry and tedious. Books dealing with it have small success and their

merit will not be recognized except after the passage of time (Maurice de Saxe, "My Reveries Upon the Art of War," T.R. Phillips (ed.), *Roots of Strategy*, 1955, p. 189).

This chapter primarily focuses on the concepts of the principles of war from ancient times until the Napoleonic era, It includes an examination of concepts of *Ssu-ma Fa*, Sun Tzu, Wu Tzu, Wei Lao-tzu, T'ai Kung, T'ai-tsung and Li Ching, Miyamoto Musashi, Vegetius, Maurice de Saxe, Frederick the Great, Napoleon, Antoine-Henry Jomini, and von Clausewitz. The reasons for the selection of these particular works are simple. Although Asian and European military thoughts were developing independently from each other, their general approach to warfare was quite similar. The studied works provide, in a vast majority, practical guidance for some particular activity concerning warfare, and not generalizing military theories; where the former primarily deals with war as a process, and the latter – as a stage. Most of the authors were the great warriors of their times, who fought and primarily won a number of battles. In some cases their particular experience and acquired knowledge enabled them to reach the highest audience for their ideas – the state rulers, in other cases – they reached a more grateful audience, their subordinates or students. The works, with their focus on highly practical applicability, might not have shown the dynamics of the intellectual and conceptual development of their authors. These particular authors in their considerations upon war were very dependent on the conditions of their contemporary times; they were not making the assumptions and forecasts for the future, the same time highly respecting the role of the technological innovations in changing the nature of war. There is a great difference between conceptual material designed to provide instructions to suit a particular purpose in a particular time, and more general, theoretical material. The study is focused primarily on the former. There are several levels of management and execution for any process, and they include basic, average, and superior. The point of instruction-type writing that addresses subordinates is to separate the high-level decision-maker from the 'basic-average' level of management, and allow him to focus on the superior:

> Thus the commander in chief will not be forced to occupy himself with it nor be embarrassed with details. For if he attempts to be a battle sergeant and be everywhere himself, he will resemble the fly in the fable that

thought he was driving the coach (Maurice de Saxe, "My Reveries Upon the Art of War," T.R. Phillips (ed.), *Roots of Strategy*, 1955, p. 295).

The point of instruction-type writing that addresses superiors is to enable them to successfully implement their particular political objectives in an appropriate way.

That is what we call "the art of war" in a narrower sense, or "the theory of the conduct of war," or "theory of the use of the fighting forces" (Clausewitz, *On War*, p. 132).

B. THE CLASSICAL PRINCIPLES OF WAR AS THEY ARE

Before the actual study of the classics, there is certain need to formulate the framework, or lens, through which one could analyze the classical concepts of the principles of war.

The Armed Forces of the United States' *Joint Operations Doctrine* (JP 3-0, 13 February 2008) presents the latest updated version of the traditional nine principles of war and a brief interpretation of each. It also presents three new principles, which are the subjects of some later consideration. The traditional nine principles are as follows:

1. Objective

a. The purpose of the objective is to direct every military operation toward a clearly defined, decisive, and achievable goal.

b. The purpose of military operations is to achieve the military objectives that support attainment of the overall political goals of the conflict. This frequently involves the destruction of the enemy armed forces' capabilities and their will to fight. The objective of joint operations not involving this destruction might be more difficult to define; nonetheless, it too must be clear from the beginning. Objectives must directly, quickly, and economically contribute to the purpose of the operation. Each operation must contribute to strategic objectives. JFCs should avoid actions that do not contribute directly to achieving the objective(s)…

2. Offensive

a. The purpose of an offensive action is to seize, retain, and exploit the initiative.

b. Offensive action is the most effective and decisive way to achieve a clearly defined objective. Offensive operations are the means by which a military force seizes and holds the initiative while maintaining freedom of action and achieving decisive results. The importance of offensive action is fundamentally true across all levels of war.

c. Commanders adopt the defensive only as a temporary expedient and must seek every opportunity to seize or reseize the initiative. An offensive spirit must be inherent in the conduct of all defensive operations.

3. Mass

a. The purpose of mass is to concentrate the effects of combat power at the most advantageous place and time to produce decisive results.

b. To achieve mass is to synchronize and/or integrate appropriate joint force capabilities where they will have a decisive effect in a short period of time. Mass often must be sustained to have the desired effect. Massing effects, rather than concentrating forces, can enable even numerically inferior forces to produce decisive results and minimize human losses and waste of resources.

4. Economy of Force

a. The purpose of the economy of force is to allocate minimum essential combat power to secondary efforts.

b. Economy of force is the judicious employment and distribution of forces. It is the measured allocation of available combat power to such tasks as limited attacks, defense, delays, deception, or even retrograde operations to achieve mass elsewhere at the decisive point and time.

5. Maneuver

a. The purpose of maneuver is to place the enemy in a position of disadvantage through the flexible application of combat power.

b. Maneuver is the movement of forces in relation to the enemy to secure or retain positional advantage, usually in order to deliver — or threaten delivery of — the direct and indirect fires of the maneuvering force. Effective maneuver keeps the enemy off balance and thus also protects the

friendly force. It contributes materially in exploiting successes, preserving freedom of action, and reducing vulnerability by continually posing new problems for the enemy.

6. Unity of Command

a. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective.

b. Unity of command means that all forces operate under a single commander with the requisite authority to direct all forces employed in pursuit of a common purpose. During multinational operations and interagency coordination, unity of command may not be possible, but the requirement for unity of effort becomes paramount. Unity of effort — coordination and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization — the product of successful unified action.

7. Security

a. The purpose of security is to never permit the enemy to acquire unexpected advantage.

b. Security enhances freedom of action by reducing friendly vulnerability to hostile acts, influence, or surprise. Security results from the measures taken by commanders to protect their forces. Staff planning and an understanding of enemy strategy, tactics, and doctrine will enhance security. Risk is inherent in military operations. Application of this principle includes prudent risk management, not undue caution. Protecting the force increases friendly combat power and preserves freedom of action.

8. Surprise

a. The purpose of surprise is to strike at a time or place or in a manner for which the enemy is unprepared.

b. Surprise can help the commander shift the balance of combat power and thus achieve success well out of proportion to the effort expended. Factors contributing to surprise include speed in decision-making, information sharing, and force movement; effective intelligence; deception; application of unexpected combat power; OPSEC; and variations in tactics and methods of operation.

9. Simplicity

a. The purpose of simplicity is to prepare clear, uncomplicated plans and concise orders to ensure thorough understanding.

b. Simplicity contributes to successful operations. Simple plans and clear, concise orders minimize misunderstanding and confusion. When other factors are equal, the simplest plan is preferable. Simplicity in plans allows better understanding and execution planning at all echelons. Simplicity and clarity of expression greatly facilitate mission execution in the stress, fatigue, and other complexities of modern combat and are especially critical to success in multinational operations (JP 3-0, pp. 197-99).

In order to reduce the subject of study to more a reasonable volume one must apply some theoretical perspective. In his essay *A Survey of the Theory of Strategy,* J. B. Bartholomees explained the U.S. Army War College's definition of the term 'strategy,' which is very close to the interpretation of the principles of war:

> …strategy is simply a problem solving process. It is a common and logical way to approach any problem—military, national security, personal, business, or any other category one might determine. Strategy asks three basic questions: what is it I want to do, what do I have or what can I reasonably get that might help me do what I want to do, and what is the best way to use what I have to do what I want to do? Thus, I agree with the War College that **strategy is the considered relationship among ends, ways, and means** (J.B. Bartholomees, "A Survey of the Theory of Strategy," *U.S. Army War College Guide to National Security Issues*, Vol. I: Theory of War and Strategy (June 2008), p. 15, emphasis added).

In this regard, the 'principles of war' are no different from the general principles of any contest in a particular system of conditions (rules) or environment, whether it is a sport, business competition, or war. Of course, this excludes the differences in the nature of activities and only takes into account the notion of the confronting interests. The place and the role for the principles in the strategy is "the best ways." Therefore, the entire list of the principles might be interpreted as follows: if one has *suitable* ends to achieve and means which are *feasible* to use, one needs only *acceptable* ways of action. One needs to have clear objectives to attain particular goals. Then one must use all available means, in a concentrated and synchronized effort, to achieve these goals; this is the principle of

Mass. Taking the initiative in the contest to accomplish one's goals is the principle of the Offensive. Economy of Force is illustrated through the reasonable application of one's means primarily to the most advantageous points. Continuously placing the counterpart in the position of disadvantage is how one uses the Maneuver principle. The principle of surprise is achieved by acting in a manner for which the counterpart is not prepared. The principle of Security is applied to effectively secure one's means and plans for action. All of this is accomplished under a single united authority in managing the process through clear and concise orders and regulations, which are examples of Unity of Command and Simplicity respectively.

Thus this algorithm of the decision-making process in the waging of war, although it is oversimplified, has become more clear and applicable. Clausewitz said that "war is nothing but a duel on a large scale" (Clausewitz, *On War*, p.75), and 'the art of war' consists of tactics and strategy, where "the first is concerned with the form of the individual engagements, the second with its use" (Clausewitz, *On War*, p. 132). Therefore, in war-waging there are several levels of complexity that range from high to low as follows: policy, strategy, doctrine, and tactics (actual fighting). The applicability of the principles of war moves from the bottom up. One may apple the full spectrum of them on the tactical level, but only some of them are feasible for the policy-strategy levels. If we consider the principles of war as a full-set, they are actually more suitable as the principles of battle. Even if the concept of them seems easy from the first glance, the principles of war are not so easy to follow, but the general guideline for battle-fighting has not changed through the years.

Let us look at it thoroughly in the context of T'ai Kung's political advice and tactical instructions to Kings Wen and Wu of the Chou dynasty in the eleventh century B.C.:

> King Wu said: "Suppose two armies encounter each other. The enemy cannot come forward, and we cannot go forward. Each side goes about establishing fortifications and defenses without daring to be the first to attack. If I want to launch a sudden attack but lack any tactical advantage, what should I do?"

The T'ai Kung said: "<u>Make an outward display of confusion while actually being well ordered</u>. Show an appearance of hunger while actually being well fed. Keep your sharp weapons within and show only dull and poor weapons outside. Have some troops come together, others split up; some assemble, other scatter. <u>Make secret plans, keep your intentions secret</u>. Raise the height of fortifications, and conceal your elite troops. If the officers are silent, not making sounds, the enemy will not know our preparations. Then if you want to take his western flank, attack the eastern one."

King Wu said: "If enemy knows my true situation and has penetrated my plans, what should I do?"

The T'ai Kung said: "The technique for military conquest is to <u>carefully investigate the enemy's intentions</u> and <u>quickly take advantage of them, launching a sudden attack where unexpected</u>" (T'ai Kung, "Six Secret Teachings," R.D. Sawyer (ed.), The Seven Military Classics of the Ancient China, 1993, pp. 51-2, emphasis added).

Alternatively, consider the *Ssu-ma Fa*, originated approximately in the forth century BC, which states:

Mount a sudden strike on their doubts. Attack their haste. <u>Force them to constrict their deployment</u>. <u>Launch a sudden strike against their order</u>. <u>Take advantage of their failure to avoid harm</u>. Obstruct their strategy. Seize their thoughts. Capitalize on their fears ("Methods of the Ssu-ma," R.D. Sawyer (ed.), *The Seven Military Classics of the Ancient China*, 1993, p. 142, emphasis added).

Napoleon in his *Military Maxims* presents the inevitability of applying the classical principles of war because of their origins and absolute true nature:

Gustavus Adolphus, Turenne and Frederic, as also Alexander, Hannibal and Caesar have all acted on the same principles. <u>To keep your forces united, to be vulnerable at no point, to bear down with rapidity upon important points—these are the principles which insure victory</u> (Napoleon, "Military Maxims", T.R. Phillips (ed.), *Roots of Strategy*, 1955, pp. 431-32, emphasis added).

Antoine-Henry Jomini broadens the Napoleon's statement and gives some interpretations of it. He also points out that knowing some firm maxims does not always

lead to their successful implementation. Knowledge of them is not enough, and deep understanding and wide experience are required:

> It is proposed to show that there is one great principle underlying all the operations of war — a principle which must be followed in all good combinations. It is embraced in the following maxims:
>
> 1. To throw by strategic movements the mass of an army, successfully, upon the decisive point of the theater of war, and also upon the communications of the enemy as much as possible without compromising one's own.
>
> 2. To maneuver to engage fractions of the hostile army with the bulk of one's forces.
>
> 3. On the battle-field, to throw the mass of the forces upon the decisive point, or upon the portion of the hostile line which it is of the first importance to overthrow.
>
> 4. To so arrange that these masses shall not only be thrown upon the decisive point, but that they shall engage at the proper times and with energy.
>
> This principle has too much simplicity to escape criticism: **one objection is that it is easy to recommend throwing mass of the forces upon the decisive points, but that the difficulty lies in recognizing those points** (Jomini, *The Art of War*, pp. 70-71, emphasis added).

Strange enough, but, more than a millennium before Jomini's time, Chinese Emperor T'ang T'ai-tsung, who united China in the seventh century A.D. and was a great warrior of his time, made a similar point in his dialogue with Li Ching, his earliest associate and supporter:

> I have looked through all the military books, but none surpasses Sun-tzu. In Sun-tzu's thirteen chapters there is nothing that surpasses the 'vacuous' and 'substantial.' Now when employing the army, if one recognizes the strategic power of the vacuous and substantial, then he will always be victorious. Our contemporary generals are only able to talk about avoiding the substantial and attacking the vacuous. When they approach the enemy, **few recognizes the vacuous and substantial**, probably because they are unable to compel the enemy to come to them, but on the contrary are compelled by the enemy. How can this be? (T'ang T'ia-tsung, "Questions

and Replies Between T'ang T'ai-tsung and Li Wei-kung," R.D. Sawyer (ed.), *The Seven Military Classics of the Ancient China*, 1993, p. 336, emphasis added).

Even in this brief analysis of the writings of the military classics, one can conclude that the particular need at all the times was the proper understanding of the particular circumstances of the current environment, a masterful evaluation of its conditions, the skillful management available resources, and a thoughtful application of them for achieving specific goals. The widely accepted maxims were no more than starting points for consideration and did not guarantee victory when blindly followed. Clausewitz said that "everything in strategy is very simple, but that does not mean that everything is very easy" (Clausewitz, *On War*, p. 178). When looking at the 'strategic chain' of *ends*, *ways*, and *means*, the *ends* have been relatively stable through the time. However, the evolution of war *means* has led to a continued variance in the concept of *ways*. Some ways achieve dominance while others are sacrificed. See, for example, the change in dominant ways over time – from *Objective* in ancient times, to *Maneuver* in times of Roman Empire, *Offensive* for Frederick, *Maneuver* again in the Napoleonic era, *Mass* in the late nineteenth century and in WWI, to *Maneuver* and *Offensive* in WWII, and to *Objective* in modern times – where the overwhelming nature of means caused the necessity for establishing some new principles of war, such as *Restraint*, *Perseverance*, and *Legitimacy* (JP 3-0, pp. 199-200). It was the Napoleonic era that gave birth to the particular war concepts in the form of its principles and attempted to systemize the treatise of war, which were relatively long-lasting and stable. From the general perspective, in his *A History of Military Thought*, Azar Gat has stated:

> The First World War was the second and more crucial turning-point in Jomini's decline, because in many ways it ended the Napoleonic model of warfare. In the Napoleonic-Jominian paradigm, still sufficiently relevant through the nineteenth century, armies maneuvered against one another in a relatively open space. In contrast, those who took part in the fighting on the Western front, when searching for an analogy in previous experience, could only describe it as gigantic siege. The growing armies with their increasing fire-power filled space from one end to the other, blocking all the movement with long and continuous front lines. The revival of the war of movement in the Second World War brought back some relevancy to the Jominian categories of maneuver. But warfare was now conducted

with mechanized armies and air force, supported by huge industrial and technological infrastructures. A work that reflected the Napoleonic pattern of operations could hardly retain its former practical value in the new age (Gat, *A History of Military Thought*, 2001, p. 132).

The understanding of dynamics of warfare of the past; the analysis of the practical guidelines of the great warriors; the deep understanding of the nature of the matter of war, of its integral elements, and their interrelations and interactions; and the thoughtful analysis of the transformation of the content of war were the main subjects of study for Clausewitz on the eve of the decline of Napoleonic era of war. In terms of the subject of this study, Clausewitz's work is also interesting because he expressed the following about the purpose of his twelve years' work – *On War*:

> Part of the object of this book is to examine whether a conflict of living forces as it develops and is resolved in war remains subject to general laws, and whether these can provide a useful guide for action. This much is clear this subject, like any other that does not surpass man's intellectual capacity, can be elucidated by an inquiring mind, and its internal structure can to some degree be revealed. That alone is enough to turn the concept of theory into reality (Clausewitz, *On War*, p. 150).

C.   CLAUSEWITZIAN WAR

Azar Gat states about Clausewitz:

The Clausewitz's reformulation of the concept of military theory, which was directed against the theoretical outlook of the Enlightenment, was bound up with his effort to devise an adequate military theory of his own. His ideas evolved from the general era into a comprehensive and systematic treatise on war written during the period of peace (Gat, 2001, p. 192).

Clausewitz's work was neither a set of recommendations, nor a manual, nor instructions for action; it was sophisticated, comprehensive theoretical work on the subject of war. Within its scope and methodology were "the pure concept of war with all its rigorous implications" (Clausewitz, *On War*, p. 580). It consisted of what the previous treatises of war were lacking – the constructive basis of clear complete definitions of the subject and its elements to deal with, the conceptual framework of unity and

24

interdependency of these elements, with the deep analysis of them as comprehensive structures and their individual integral parts as well. This is how Clausewitz presented the organization of his work *On War* in the Introduction to the eighth book:

> In the chapter on the nature and purpose of war we roughly sketched the general concept of war and alluded to the connections between war and other physical and social phenomena, in order to give our discussion a sound and theoretical starting point. We indicated what a variety of intellectual obstacles besets the subject, while reserving detailed study of them until later; and we concluded that the grand objective of all military action is to overthrow the enemy – which means destroying his armed forces. It was therefore possible to show the following chapter that battle is the one and only means that warfare can employ. With that, we hoped, a sound working hypothesis had been established.
>
> Then we examined, one by one, the salient patterns and situations … that occur in warfare, trying to gauge the value of each with greater precision, both according to its inherent characteristics and in light of military experience. We also sought to strip away the vague, ambiguous notions commonly attached to them, and tried to make it absolutely clear that the destruction of the enemy is what always matters most (Clausewitz, *On War*, p. 577).

The range of his explanation of some issues complicated the clarity of his expressions; but his elaboration of the extreme forms of his subject matter allowed Clausewitz to be particularly focused on the major matters of his theory. This approach, complicated by his selection of issues in terms of their possibility of occurrence – based on the analysis of historical evidences, was often misunderstood by his contemporaries and succeeding analysts. The most obvious difference between Clausewitz and previous military thinkers was that the latter were mostly elaborating on theoretical concepts from contemporary and past knowledge and experience, where the former was trying to develop his own universal theoretical framework and was constantly testing it against both contemporary and past times. He was not confronting the earlier theoretical material, as Azar Gat stated in the quote above, but using the concepts of Bulow's and Jomini's to sharpen his own theoretical skills (Paret, "The Genesis of *On War*," *On War*, p. 10). Peter Paret presented Clausewitz's approach in this way:

If the present did not provide the ideal against which war in the past could be measured, Clausewitz equally insistent that Napoleonic war could not establish standards for the future. What did this mean for theory? To Clausewitz the answer was obvious: The theory of any activity, even if it aimed at effective performance rather than comprehensive understanding, must discover the essential, timeless elements of this activity, and distinguish them from its temporary features. Violence and political impact were two of the permanent characteristics of war. Another was the free play of human intelligence, will, and emotions. These were the forces that dominated the chaos of warfare, not such schematic devices as Bulow's base of operations or Jomini's operating on interior lines (Paret, "The Genesis of *On War*," *On War*, p. 11).

However, Clausewitz's work could also be interpreted in a way that considers any type of military writing as some sort of guideline for immediate application in action. At the end of the nineteenth and beginning of the twentieth centuries, absolute concepts and their relatively confusing nature in terms of practical applicability led to highly echelon entrenched defensive warfare. This was accompanied by extremely devastating bold offensive actions against such formations: while considering "defense [as] a stronger form of fighting than attack," the same time it was accepted that "a defensive campaign can be fought with offensive battles, and in a defensive battle we can employ our divisions offensively;" for this purpose it was necessary to have army as big as possible and prepared for a single decisive blow against the concentration of the enemy's forces – their "center of gravity" (Clausewitz, *On War*, p. 84, p. 357, p. 485). The influence of the latter concepts on the French military in the end of nineteenth century is described by Azar Gat:

> The Infantry Field Regulations which were issued in 1884 stressed 'the principle of decisive attack, head held high, with no attention to losses.' They called for energetic and vigorous advance even under heavy fire and against well-defended trenches (Gat, 2001, p. 399).

According to Clausewitz, warfare is varied between two extremes – complete annihilation of counterpart's forces and armed observation of them (Clausewitz, *On War*, p. 81). In order to be precise in the treatment of the subject, Clausewitz was primarily focused upon the former – *absolute* extreme, which has the balance of *ends* and *means* as a factor in moving the 'content' of war in between these two extremes. These extremes

also varied in accordance with Clausewitz's newly introduced concepts. These concepts include the 'trinity of war,' which is a complex decision-making element comprised of people, government, and military that uses suitable *ends* and available *means*. Another concept is the 'genius' of the commander , which are the commander's capabilities to manage the moral and material elements of war in terms of applying existing *means* in applicable *ways*. The last 'new' concept is the 'friction of war,' which is the main factor that influences the extent of the feasibility of *means*, reducing "the abstract absolute to the modifications it assumed in reality" (Paret, "The Genesis of *On War*," *On War*, p. 21).

Clausewitz's concept of war in terms of its integral parts, accompanying circumstances, and possible conditions of environment can be simplified as follows: the connecting element in the chain of 'ends-ways-means' is, of course, 'ways.' 'Ways' can vary, as one can have many or few or none at all. The *ends* can define the *means* that are necessary for their achievement, and the available *means* can define the possible *ends* to achieve; therefore – they are reciprocal unlike the *ways,* which are in between, regulating the intensity of *ends* and *means* in their balance. They are the deciding factor with regard to the cost that the acquiring part would pay by its *means* for the targeted *ends* to be achieved. This is, presumably, why Fuller subordinated all nine 'classical principles of war' to the single *Law of Economy of Force* – they all serve to reduce the 'price' for the victory (Fuller, *The Foundations*, p. 214). The more one wants, the more extended the *ends*, the more *means* one is going to 'spend.' If one is limited in *means*, he is supposed to act in *ways* which would compensate for the inferiority of his *means*. This is the approximate place of 'nine classical principles' in the equation. If one has relatively limited *means* (compared to the enemy's), one should plan actions for the achievement of the most suitable military objective at hand. This requires taking initiative and maneuvering forces to the decisive point on a battlefield, concentrating efforts in an unexpected, but reasonable way, and providing security by keeping plans secret and simple. (This is not much different from the logical assumption of application of the principles of war, made in the beginning of section B, according to the pre-Clauswitzian concept of warfare. However there are some differences. Clausewitz did not consider

27

surprise, cunning, and extensive maneuvering against enemy's flanks and rear sufficiently applicable in his theory of contemporary warfare; and, contrary to ancients and contemporaries, who recommended an attack on the weakest rather than the strongest sides of the enemy, Clausewitz considered 'the center of gravity' – the strongest side of the enemy's force – as a primary target). If a commander has superior means over an enemy, there are no 'logical' restrictions against the total application of his overall force in a very simple form of, for example, a bold frontal massive attack (Clausewitz, *On War*, p. 77).

D.   CONCLUSION

We can assume the following about the cases described above: the latter is an abstract and former a rational model. However, looking at the hundreds of thousands of casualties in a single battle in either in the period of Warring States in ancient China or during the WWI, the very notion of rationality in war seems to be abstract as well. In addition, in this kind of war the possibility of total superiority of one side over another is relatively slim. Therefore, the general idea is that one should manage his existing capabilities and resources rationally and reasonably in order to accomplish an assigned mission or task, while at the same time suffering the smallest possible loss. If one is not successful in achieving desirable *ends* by using available *means* in particular *ways*, one should either reconsider the *ends* adjust the *means,* or rethink the *ways.* The role of the 'classical principles of war' is to the most favorable circumstances for the most precise, effective, and successful application of force in an armed conflict. Without considering them as a complete fixed list, throughout the history the war fighting, humanity has been exploiting **the meanings of these 'principles'** to explain their patterns of decision-making and their actions in combat of any magnitude. Michael Handel pointed out that, in spite of the huge gap between Sun Tzu and Clausewitz "in terms of time, geographic conditions, and culture … the differences in emphasis and, at times, substance between these two great strategists should not be exaggerated" (Handel, *Masters of War*, 2005, p. 20). But the concepts of *A Book of Five Rings*, by the seventeenth century Japanese master of sword fencing, Miyamoto Musashi, are much closer to Clausewitz's concepts

by their absolute nature, than those of Sun Tzu. For the summary, there are the words of General Burnod, who compiled Napoleon's *Maxims*. In his introduction to them he stated:

> The art of war is susceptible of being considered under two titles: the one, which rests entirely on the knowledge and genius of the commander; the other, on matters of detail. The first is the same for all time, for all peoples, whatever the arms with which they fight. From this it follows that the same principles have directed the great captains of all centuries. The matters of detail, on the contrary, are subject to the influence of time, to the spirit of the people and the character of armaments (quoted by Phillips, *Roots of Strategy*, p. 406).

THIS PAGE INTENTIONALLY LEFT BLANK

III. TRANSFORMATION OF A CONCEPT OF THE PRINCIPLES OF WAR IN THE TWENTIETH CENTURY

> Theory cannot equip the mind with formulas for solving problems, nor can it mark the narrow path on which the sole solution is supposed to lie by planting a hedge of principles on either side. But it can give the mind insight into the great mass of phenomena and of their relationships, then leave it free to rise into the higher realms of action. (Clausewitz, *On War*, p. 578)

A. THE PRINCIPLES OF WAR AS A GUIDE FOR CONSIDERATION

Although the theoretical concepts of Jomini were highly relevant in his own time and had a long history of application afterwards (especially in Great Britain and in the United States), Azar Gat pointed out, "the absolute hegemony that this school had maintained over military theory was irreversibly broken… Clausewitz began to formulate the most comprehensive and sophisticated expression of new ideas in the field of military thought, thus laying the intellectual foundations for what was to be a new German military school" (Gat, 2001, p. 142).

As an intellectual, dealing with the most evolving and most 'productive' subject in human history – war, Clausewitz unintentionally and intuitively defined the nature of future wars. The influence of his concepts seems to be absolute. War has become the *vital* matter for entire nations. It consumes huge human and material resources and requires the concentration of all efforts to achieve a common goal. War stopped being some relatively 'annoying factor,' and became the matter of the very existence of states and peoples. In his last book *On War,* Clausewitz highlighted the transformation of contemporary war as he saw it:

> In the eighteenth century, in the days of the Silesian campaigns, war was still an affair for governments alone, and people's role was simply that of an instrument. At the onset of the nineteenth century, peoples themselves were in the scale of another side. The generals opposing Frederick the great were acting on the instructions – which implied that caution was one of their distinguishing characteristics. But now the opponent of the Austrians and Prussians was – to put it bluntly – the God of War himself.

Such transformation of war might have led to new ways of thinking about it. In 1805, 1806, and 1809 men might have recognized that total ruin was a possibility – indeed it stared them in the face. It might have stimulated them to different efforts that were directed toward greater objectives than a couple of fortresses and a medium-sized province (Clausewitz, *On War*, pp. 582-83).

But, regardless of how complicated the matter of war became for its participants – planners, supporters, and executors – the guiding algorithm for *managing* war, from beginning to end, remains basically the same. With the set of its attributes being either highly original or very similar for each case, it subordinates the very strict chain of mandatory events and their synchronous considerations.

Social and technological changes highly influence the very nature of war. Massive European armies, following 'commonly-accepted' rules and regulations based upon the theories of native military thinkers, were stuck in the devastating stalemates of WWI. Military leaders misunderstood the complicated comprehensive concepts, and made blind attempts to adopt the winning framework of the past, which was highly relevant in the environments where they originally occurred. They ignored the importance of the contemporary circumstances, and did not adjust the general principles, even when they were unsuccessful. This led to the senseless sending of reinforcements, which ultimately led to more devastating consequences.

As mentioned in the previous chapters, the 'principles' originated from the analysis of the past and present. They were a logical set of maxims about how to successfully fight the next war and effectively adapt to it the *means* and *ways* of the previous one. The Interwar period between WWI and WWII was just the case. WWII started with the same weapons used at the end of WWI. The concepts of mobile warfare, strategic bombing, armored warfare, and combined warfare originated during WWI. During this war, leaders successfully applied dogmas of the past to similar current conditions and circumstances.

Originally, the principles were not expressed by the warriors (most simply did not have the time to write – Caesar being a notable exception – they were fighting). In

addition, most of the great warriors did not have any special military education, nor had they done any extensive reading of military theory…

> Self-instruction and practical experience prepared such luminaries as Alexander, Hannibal, his nemesis Scipio Africanus, Julius Caesar, Genghis Khan, Suleiman the Magnificent, Jomini, Douhet, and Giap (John M. Collins, *Military Strategy: Principles, Practices, and historical Perspectives*, Washington, D.C.: Brassey's Inc., 2002, p. 258).

Their schools were their battles. Even if something was written by a warrior, it was short, sound, simple, and instructive. For example, de Saxe wrote his *Reveries* in thirteen nights while he was sick, as opposed to Clausewitz who, though an officer with much combat experience, took twelve years to complete his *On War*. The great armies enjoyed their successes mostly due to the creative management of their modern-thinking Chiefs and their Staffs. Contrarily, armies have often suffered defeat because of their reaction-thinking leaders' adherence to dogmas.

The comprehensive studies of war were often misinterpreted, misused, or even just simply not appreciated. This is illustrated in the case of Quincy Wright's *A Study of War*, which he waited sixteen years to publish (Fred Kaplan, *The Wizards of Armageddon*, Stanford, California: Stanford University Press, p. 13). The creation of the lists of the principles, taking into account their various quantities, names, and interpretations, was mostly relegated to unknown manual writers and composers of military textbooks. The main problem was that, for educational purposes, these principles had been pulled from the context of complete and comprehensive works with a little concern about the time and circumstances of their appearance. Therefore, readers missed the very important point that those works were exclusively theoretical. Moreover, for example as Brodie stated, "His [Clausewitz's] method, plus natural inclination of a searching mind to work around a subject, makes Clausewitz quotable on whichever side of an issue one desires" (Bernard Brodie, *Strategy in the Missile Age*, Princeton: Princeton University Press, 1959, p. 38). The principles were given sound names and convenient interpretations according the contemporary times with the little regard to their actual relevancy for the particular way of war. *The principles of war are a matter of improvisation*, the real freedom of action for the commander, when he can act on his own

to achieve a particular goal. For example, if one has to prevent the capture of an important object, one can create the defense fortifications around it create a system of mobile combat groups for interception of the enemy, make ambushes on the incoming routes, or burn the object to the ground. The decision will come from the tools and training he possesses in terms of the task.

In a centralized command, when the manuals, regulations and rules of engagement are imposed by the organizational culture, there is no place for improvisation. The only choices allowed come from the available options, which are pre-assigned by the codes of actions. One wins the war not by following the principles, but by studying the contemporary world, technology, and organizations; creating desirable policies, strategies, and doctrines; developing means; and arming them with relevant tools. Afterwards, if one wins the battle by violating the principles – he is a genius; if one loses the battle – he has been blamed because he violated basic principles.

The doctrine matters more. If we study the aftermath of WWI, the Allies were locked in their contemporary weaponry and doctrines, and resisted change. The Germans, faced with the restrictions imposed upon them, had no choice but to develop their new winning doctrine and the means and tools to fit the new doctrine (James S. Corum, *The Roots of Blitzkrieg*, University Press of Kansas, 1992, p. 99). The Russians were stuck in between the doctrinal change. In his highly disputed book *Day M* Viktor Suvorov (Rezun) pointed out that Russian strategy and doctrine were transforming in the time when *Barbarossa* was unleashed. The same point was made by Posen that "the Russians in 1941 were taken in the midst of doctrinal transition" (Barry R. Posen, *The Sources of Military Doctrine*, 1984, p. 55). Suvorov presented "the evidence" of the transition in the creation of the BT-series of light and fast tanks, the regrouping of forces along the borders, and the concentration of logistical resources in their close proximity. The subject of the doctrinal transition in the Red Army before WWII should be explored. The simple mentioning of Marshal Tuhachevskyi's name represents the complete history of the attempted reformation of Red Army in the Interwar period. He was the advocate of offensive, mobile, armored warfare, deep penetration tactics, aircraft carriers, and rocket industry. He admired Fuller, Liddell Hart and de Gaulle's works. In part due to overly

persistent efforts, he was executed in 1937 after being falsely accused and subsequently convicted of treason. Thus, the main problem in the competent transition of doctrines and their successful implementation was with the competent military leadership. Most of the Soviet Union's General Staff was beheaded in 1936-37. While the most devoted 'communists' remained, they were not necessarily the most competent. The same pattern was obvious in the Hitler's behavior before the war. He surrounded himself with only the most 'real Aryans.' This helps explain the disastrous defeats of the Soviet Army in the beginning of war and that of the decline of German military effectiveness in the second part of WWII.

In the Interwar period, Germans, suffering from defeat in the previous war, were seeking the most progressive knowledge and – to much larger extent –practical experience in tactics and weaponry, which they were lacking and they regarded as most prospective. In the 1920s there were over 400 officers studying more than 50 military matters under the direct supervision of the High German military command. They were not searching for strategic theories; they had enough of their own. In fact, according to Corum, Germans were interested in Fuller's writings, "not because they appreciated his grand theories of war … but because of the solid practicability of most of Fuller's ideas." As for Liddell Hart's claim to be the "father of the successful German blitzkrieg tactics," Corum pointed out that "Guderian did not cite Liddell Hart as a source for the *Achtung! Panzer!* nor did von Eimannsberger, Heigl, or Volckheim ever cite Liddell Hart or show any familiarity with his ideas. The great practitioner of armored warfare, Field Marshall Rommel, never had heard of Liddell Hart before he read an article of his in late 1942" (Corum, 1992, pp. 141-42). Therefore, they were every opportunity to enrich their knowledge and develop their capabilities to effectively deal with the organizational structure of the troops, their education and training, and the mastering of aircraft and tanks. "Moreover, development of armored capabilities took place within the larger framework of doctrinal change, modernization, and technological innovation that affected all military capabilities" (Williamson Murray, "Armored Warfare," W. Murray, A.R. Millet (Eds), *Military Innovation in the Interwar Period*, Cambridge: University Press, 1996, p. 8). Brodie pointed out that, "in the unusually long interludes between wars, it is

both easier and pleasanter to dwell on what we shall do to the enemy on D-Day than to what he will seek to do to us" (Brodie, 1959, p. 43), and Murray admitted that "German doctrinal conceptions, by emphasizing exploitation, speed, leadership from the front, and combined arms, provided a solid framework for thinking through not only how the Reichswehr, if it possessed tanks, might employ them against the enemy, but how a potential opponent might utilize armor against German forces" (Murray, "Armored Warfare," 1996, p. 39). Having been limited in the development of their capabilities under restrictions of the Versailles, the German military, with new doctrines for a future war, started intensive rearmament and force manning after the Nazi accession to the power in 1933. Hitler did not create the German military along with his ambitions; he inherited it and reinforced it as necessary.

As Posen pointed out, "Blitzkrieg exploited new technology; it was not created by that technology. The essence of Blitzkrieg was its elaborate combination of old and new service arms and technologies to attack directly new military objective – the command, control, communications, and intelligence functions of an enemy army." The technology was not determinative – "tanks and aircraft aplenty were present in the British and French armed forces in the spring of 1940. An innovation in military doctrine for land warfare was not" (Posen, 1984, p. 219). Even Germans' combination of tanks and "close air support" thrusts – the main features of *Blitzkrieg* – "remained minimal until the final two years of World War II" (Richard M. Muller, "Close Air Support," W. Murray, A.R. Millet (ed.), *Military Innovation in the Interwar Period*, Cambridge: University Press, 1996, p. 144). Moreover, German 'mechanized' warfare was conducted by only 20% of the overall force structure of troops involved in the military campaigns of WWII. This was the embodiment of Seeckt's concept of a highly trained professional small 'army'. The rest of the German Army remained "a foot and horse-drawn army." But this proportion was enough to "fit within their doctrinal framework and … allowed them to gain operational freedom on the battlefield" (Murray, "Armored Warfare," 1996, p. 46). When compared with their rivals, this was a great example of the successful symbiosis of a well-elaborated new doctrine and tactics with old-new arms, a favorable international environment, and extensive training of the troops from corporal to the General Staff.

On the eve of WWII, the Germans' significant technological and organizational breakthroughs, reinforced by their strong retaliatory spirit, allowed them to quickly and successfully conquer much of Europe. But still, in the end, they failed. This occurred for a variety of reasons. First, they ignored the simple warning of Sun Tzu about protracted war never being beneficial for any nation. They also dismissed the experience of Bonaparte in Russia. Their naval and air strategies were mismatched, and there was an absence of political will the Germans. There were not enough capable officers on their General Staff revise and rethink the concept of the *Blitzkrieg*, which needed to be adjusted to counter its obvious tendency to gradually fail. For as Liddell Hart pointed out, "once Germany's opponents began to develop suitable defensive tactics, and more adequate air support, the Blitzkrieg offensive suffered increasing checks" (Liddell Hart, *Deterrent or Defense*, New York: Frederick A. Praeger, 1960, p. 178). In addition, the Germans distributed their main efforts along the Eastern front and essentially waged two major wars on two full-scale fronts (Murray, 1996, p. 47) This included a campaign in Africa and naval warfare in Atlantic. All of these factors, coupled with severe logistical shortages and the political miscalculations implemented in strategic and operational misdirection, drove to German operational, strategic, and political failure as a state in the end.

Thus, even when doctrine and military means seem to fit perfectly, as in the case of Germans in WWII, there is no guarantee of successful implementation and achievement of the desired objectives. The constant reconsideration of the strategy and doctrine is needed in the process of war in order to make the adjustments and corrections – innovations – to problematic spheres. In this regard there exists an interesting dispute between Corum and Posen. In a response to Posen's statement: "Drawing on the organizational theory … organizations like offensive doctrines, and they do not like to innovate. The behavior of the German Army confirms these predictions" (Posen, 1984, p. 215), Corum argues: "Posen missed the point. Postwar German military doctrine represents considerable innovation, and armies prefer the offensive because it wins the war" (Corum, 1992, p. 66). But the Germans' strategy was already offensive in the Interwar period, and as Posen pointed out, "its problem was to make the offensive

possible" (Posen, 1984, p. 67) in their contemporary environment, which required certain innovations for the development and transition to the new doctrine and armament. But once an organization reaches the desirable point of its development, it fixes on it conservatively in order to perform most effectively. Therefore, it becomes highly resistant to further innovations, because, the transformation makes the organization weaker. Therefore, if an organization is limited in its overall resources to compensate for the loss of effectiveness, it rejects innovations in order to preserve the existing level of performance. With regard to the concept of *Blitzkrieg*, it was a fast campaign by definition; and, in the German case, it presumably did not even have any contingency-type planning. Therefore, one could take the statement of John M. Collins that "superb strategies are advantageous only if armed forces are properly organized, equipped, and trained to implement them successfully" (Collins, 2002, p.106) and add the idea that when the military is dealing with some new doctrine (strategy) that it has never applied before, it should be twice as careful in organizing and planning for the war which they are going to wage. Bernard Brodie pointed out that...

> …military planners are characteristically bemused by what they think *ought* to be the orders, perhaps with the unconscious assumption that when it comes to a question of the use of military force, their views about degree and manner of application should and probably will prevail (Brodie, 1959, p. 260).

Ignoring the constant transformation of war (even in terms of a single one) and the evolution of its features over time; overlooking its strong interactive and reciprocal nature; forgetting the necessity of thorough continuous consideration of the balance of *ends* and *means* in war, and adjusting the *ways* accordingly – may lead to total disaster even if the war begins successfully. The introduction of the absolute 'atomic' weapon in the middle of the twentieth century did not solve all the problems of the military or allow it to achieve its desired political objective. What was created instead was a huge mismatch between *ends* and *means*. The devastating power of a new weapon only complicated the very possibility of its application. It required the reconsideration of the entire meaning of war for the state in terms of nuclear conflict. As Bernard Brodie pointed out: "The fact is we do not even know yet whether armies can fight in a nuclear

environment" (Brodie, 1959, p. 332). Replacing first 'strategic bombardment' as the utmost lever of influence on the enemy's will to fight, the nuclear weapon eventually became the main deterrent of a large-scale conflict between major world powers and their allies. This development shifted contemporary warfare to the other extreme – the low intensity conflicts. But the general, widely accepted approach to low-intensity conflict was defined by Sir John Slessor: "The dog we keep to deal with the cat will be able to deal with the kittens" (quoted by Brodie, 1959, p. 331). Many attempts to wage small wars using the successful framework of the 'big wars means' failed to achieve the desired results in both the twentieth century and in our current time.

Aside from blindly following the 'commonly accepted' winning framework, while ignoring the question of its possible relevance to the contemporary, evolving conditions, there are some additional practices that undermine the very nature of the principles of war as a *quest for victory*. The first is a problem with their interpretation. The study already threw light upon this matter. We already saw that, in a general perspective, the consideration of the balance of *ends* and *means* in war is present on all the levels of war fighting. The only exception, according to Clausewitz, is that the *end* for the tactical level becomes the *means* for the strategic level, and so forth. Following this logic, the particular *ways* to apply the *means* to achieve the *ends* are always highly relative to the particular level of 'management.' However, the phenomena of 'tacticization of strategy,' as Michael Handel calls it, because of "uncontrolled ambition of military field commanders or the tactical and operational oriented thinking of political leaders [with] an additional cause … in the form of military-technological developments" (Handel, *Masters of Strategy*, 2005, p. 358), leads to the confusion in this *ends-ways-means* chain. The mixture of some primarily tactical (or operational) principles of war (e.g. *Objective, Offensive, Mass*) and the definitions of some categories of military doctrines (*Offensive, Defensive, Deterrent*), creates the relatively false understanding of ideas of former through the concepts of latter. The interpretations of the principles from the previous chapter include the following: *Objective* – 'is to direct every military operation toward a clearly defined, decisive, and achievable <u>goal</u>;' *Offensive* – 'is to seize, retain, and exploit the <u>initiative</u>,' the same time assuming that 'offensive action is

39

the most effective and decisive way to achieve a clearly defined objective;' and *Mass* – 'is to concentrate the effects of combat power at the most advantageous place and time to produce decisive results.' The categories of military doctrines can be defined as follows by Barry R. Posen:

> *Offensive* doctrines aim to *disarm* an adversary – to destroy his armed forces. *Defensive* doctrines aim to *deny* an adversary the objective that he seeks. *Deterrent* doctrines aim to *punish* an aggressor – to raise his costs without reference to reducing one's own (Posen, 1984, p. 14).

Therefore, the doctrine can have completely different strategic objectives, when the particular combat in boundaries of any of these doctrines, by the principles, 'frequently involves the destruction of the enemy armed forces' capabilities and their will to fight,' through maintaining the initiative mostly by the offensive actions, and concentrating the military effects at the most advantageous place and time for decisive results. But when we have these extremes as the foundational concepts for military actions, then, regardless of doctrine, we only have only he aim for an active-reactive military operation – the destruction of the enemy through the only offensive actions by the massing all our available forces against the biggest concentration of enemy's ones. This was the concept of total war in WWI. The shift of the tactical objectives, in this pattern, into political (strategic) ends leads to the transformation of all doctrines into offensive ones.; When the emphasis on the particular available military means dictates the doctrine, strategy, and policy, it gives the fundamental principles of war more suitable meanings, or even creates new ones to make the more plausible fit of *ends* and *means* through the new convenient *ways*.

> Even if modern people initially do not know what they are supposed to fight for, a drawn-out conflict all but guarantees that the original goals will be forgotten, and that means will take the place of ends (Martin van Creveld, *The Transformation of War*, New York: The free Press, 1991, p. 188).

There have been attempts to reduce the influence of the latter pattern by creating the conditions where the principles actually set some restrictions on military actions. This phenomenon happens when there is an imbalance between *ends* and *means*, when the

doctrine does not fit the strategy, and the weapons do not fit the doctrine. This matter mostly relates to the so-called 'nuclear warfare's, low-intensity conflicts and has been reinforced by the both the development of technology, and increasing levels and volumes of civil-military integration. Both of these elements, especially civil-military integration are main features of twentieth century warfare.

B.   THE TRANSFORMATION OF WAR IN THE TWENTIETH CENTURY

> There are five basic questions which must be asked about any war: What is the object of the war? How to conduct the war? How to support the war? How to control the war? These five questions constitute a relatively simple, yet comprehensive, framework for studying, planning, and conducting war; when asked in the past tense they provide an analysis of the past wars, when asked in the future tense they will provide a guide to preparing for war, and when asked in the present tense they can guide the actual conduct of war (Clayton R. Newell, *The Framework of Operational Warfare*, London: Routledge, 1991, p. 9).

1.   'Nuclear' Warfare

> *I know not with what weapons World War III will be fought,*
> *but World War IV will be fought with sticks and stones.*
> *Albert Einstein*

The introduction of nuclear weapons in the middle of the twentieth century launched a new era of war fighting doctrines. The unique nature and overwhelming characteristics of nuclear devices and their delivery platforms gave food for thought to any military related audience. If Clausewitz had lived in the nuclear age, he would probably have found the 'absolute' weapon for his 'absolute' war. The same attitudes were also spread across the globe, but the advantages of the utmost means turned into its most restricting features…

> It is our major dilemma in thinking about war and peace today that we do so within an intellectual and emotional framework largely molded in the past. Our images, slogans, ideas, and attitudes, on the subject of war, some of which are buttressed by the most powerful cultural sanctions, are transmitted to us from times when war was characteristically, with a few historical exceptions, a limited-liability operation. This is not to say that

our attitudes toward war have been static. They have changed markedly since 1914, <u>and especially since the coming of nuclear weapons</u> (Brodie, 1959, p. 391, emphasis added).

One of the theorists who recognized the controversial nature of the nuclear weapon, Liddell Hart, pointed out that 'reliance on nuclear weapons for the enforcement of policy' has 'the long-term risks and boomerang effects, strategically and politically,' because...

> The mutual possession of nuclear weapons tends to nullify the value of possessing them. For even a decisive superiority of numbers does not ensure victory, as it has with other weapons, but merely mutual destruction – and there are no degrees of importance in the matter of suicide (Liddell Hart, *Deterrent or Defense*, New York: Frederick A. Praeger, 1960, p. x).

The overall tendency in the 1950s on the both sides of the Iron Curtain was to look at how to apply conventional military capabilities in nuclear war. Nobody at that time had rejected the very possibility of its outburst as the most probable extension of conventional military conflict. Both sides recognized that conventional war still remained the 'natural' form of warfare, and therefore, the question was how to effectively wage a possible 'conventional-nuclear' form of combined warfare. This required a balance of nuclear and conventional capabilities.

> The dividing line was therefore somewhere between massive and minor attack, and it seemed at one time that the British had fully accepted the American view. At the Nassau Conference of December 21, 1962, the functions hitherto assigned to nuclear and conventional defense were reversed and the latter up-graded in the process: while NATO had previously described its nuclear capability as its sword and its ground forces as the shield, the American President and the British Prime Minister agreed at Nassau to consider the nuclear devices as the shield and the ground forces as the sword; <u>'in addition to having a nuclear shield'</u>, the Communiqué stated, <u>'it is important to have a non-nuclear sword'</u> (Otto Heilbrunn, *Conventional Warfare in the Nuclear Age*, London: George Allen, 1965, pp. 24-25, emphasis added).

Thus, appreciating the nuclear weapon mostly as the main deterrent, it was pointed out, that it cannot 'deter every type of war,' because a 'deterrent that is capable of

preventing all-out war, does not necessarily prevent limited war,' and the doctrine of 'massive retaliation' was replaced by 'the doctrine of flexible response' (Heilbrunn, 1965, p. 21, p. 27).At the same time, the limited use of 'tactical nuclear weapons' does not necessarily neglect the possibility of further escalation to unlimited nuclear war. Therefore, conventional war and nuclear war should be considered together. Martin van Creveld describes these times:

> How to conduct a war with nuclear weapons was not, however, the only problem confronted by military planners. It was equally important to consider ways and means by which conventional forces could operate in such war and still survive, let alone retain their combat power. In the United States at any rate, the introduction of 'tactical' nukes during the fifties led to the so-called 'pentomic era.' Beginning in the mid-fifties, traditional divisions, normally consisting of three brigades or regiments, were carved up into five smaller and hopefully more mobile unites. Linked by the small, transistorized communications that were coming into use just then, these units were supposed to operate in a decentralized and dispersed mode unlike any used in history (van Creveld, 1991, p. 7, emphasis added).

There were two main problems created here. First, leaders had to figure out how to potentially gain and maintain the numerical superiority (actual or relative) on the ground. This is the main part of a successful *offensive* in conventional armed conflict. It expresses itself in the form of the concentration of troops on the ground, while at the same time avoids creating the attractive 'concentrated' nuclear targets. Second, and more importantly, they had to work out how to maintain effective defense without having static positions on the ground. This is the most advantageous feature of a conventional *defensive*. Leaders had to find a way to keep them effective conventionally, but avoid vulnerability to nuclear weapons. The general idea was to switch from the principle of 'possession' of the ground to 'control' of the ground. Kissinger and Liddell Hart espoused the 'concept of dominating areas' (Heilbrunn, 1965, p. 45). This concept employed highly mobile and maneuverable 'battle groups,'; it was not new and was, in fact, successfully used by Germans in WWII: "The German defensive tactics in Normandy and later were a blend of static defense with dynamic defense by dispersed battle-groups – making sharp 'finger-thrust' … On the Russian Front the defensive

capacity of small mobile forces, distributed in battle-groups and skillfully handled, proved even more remarkable." Moreover, these tactics were effectively applied by Erwin Rommel in Africa both "offensively *and* defensively" (Hart, 1960, p. 181, p. 184). The new challenges of warfare created a necessity for forces that were both offensively and defensively capable. As long as "there will not be any continuous front lines in a nuclear conflict," and "ground operations will be carried out in great depths" where "dismounted attack will be rare" – "the success of these operations depends to a large measure on intelligence and target acquisition." Thus "the defense must be deployed that it can meet an attack from the front, the flank and the rear, and that means deployment in chessboard fashion," in the conditions that "the purely mobile defense is therefore apparently almost as exposed as the attacker; after all, mobile defense must be conducted offensively" (Heilbrunn, 1965, p. 40, p. 41, p. 49, p. 55, p. 73). Having highly mobile dispersed decentralized 'pentomic battle groups' that were "fighting independently" (Heilbrunn, 1965, p. 97, p. 98) was a relative solution for nuclear-conventional war. It was especially applicable to the concept of defensive and offensive 'rear warfare.' Rear warfare meant deploying forces to the enemy's rear. These forces 'pull back the enemy's front … from the rear,' instead of pushing it back from the front. This created the possibility of simultaneously fighting 'defensively at the front and offensively in the rear.' As Heilbrunn pointed out, "this concept is familiar in guerrilla warfare" (Heilbrunn, 1965, p. 45), and it required splitting one's forces and having part of them in the enemy's rear fighting in coordination with, but independently of the forces 'engaged in the main or holding battle' (Heilbrunn, 1965, p. 90). This was traditionally highly undesirable in terms of conventional war, but was the main feature of guerrilla warfare, and it is precisely what guerrillas are capable of:

> In coordinating with the regular army the guerillas not only play the role of strategic defensive … when the enemy is launching a strategic offensive, and will not only handicap the enemy defense when the enemy concludes his strategic offensive and turns to defend the areas he occupied, but will also repulse the enemy forces and recover all the lost territories when the regular army launches strategic counter-offensive (Mao Zedong, quoted by Heilbrunn, 1965, p. 94).

Troops most suited to this type of warfare are the military Special Forces, air-landing troops, Chindit-type (deep penetration) forces, or, guerrillas (Heilbrunn, 1965, p. 102). Thus, Heilbrunn introduced some detailed 'winning' frameworks for the fighting a conventional war when there is the likelihood of it turning into nuclear one:

> 1. The troops fighting a conventional war against a nuclear power must be so deployed as if they were fighting a nuclear war that is they must be dispersed over a greatly extended battlefield. Otherwise they would in all likelihood make it impossible for their own side to introduce nuclear weapons on the battlefield in the course of the fighting, and they would be exposed to nuclear extinction if the opponent chooses to switch to nuclear war.

> 2. The conventional war against a nuclear power is characterized by purely mobile operations; there is no fixed front line, no static defense system, no defense zone; the fire-power of both sides will be almost equal, and since mobile defense must be conducted offensively, the defense is nearly as exposed as the attacker. As a result the attacker no longer requires a sizeable numerical superiority, and since the defense must attack and counter-attack almost as much as the attacker, it needs almost as many troops as he does.

> 3. The weight of the attack would be very much reduced and possibly be insufficient if the attacker would not deploy part of his forces in the enemy rear, and this is what Soviet doctrine envisages; it foresees frequent air movements of troops to the opponent's rear. A dispersed defense, on the other hand, could not withstand a concentrated attack with conventional means unless it forms concentrations itself or extends the war into the enemy's rear. The first alternative would be undesirable; the second must be adopted, and the rear forces will attack regardless of whether their own 'front' troops are attacking or on the defensive. The role of these rear forces will be to pull back the enemy front by isolating the battlefield and co-operating with their front troops in the single or double envelopment of the enemy. Only by fighting the enemy at his front and in his rear in this manner is it possible to obtain local superiority without forming concentrations to confront an enemy with strength in dispersal. To make this concept of concentric dispersion effective the mind of the soldier must be attuned by special training to the peculiar conditions of rear warfare (Heilbrunn, 1965, pp. 139-40).

The concept of a 'nuclear war fighting' doctrine remained a puzzle for a long time because of its practical inapplicability. The contradicting natures of conventional and

nuclear war undermined the very possibility of a rational way to wage them successfully to any reasonable degree. One of the tendencies of thought was that the very existence of the nuclear weapons undermined the necessity of having conventional military capabilities:

> Thus the effect of nuclear weapons, tactical ones in particular, was to threaten the continued existence of conventional forces. Yet if fighting was to take place at all, the only forces that could engage in it without threatening to blow up the world were conventional ones. It was left to the Kennedy Administration, guided by Secretary of Defense Robert McNamara and Chief of the Joint General Staff General Maxwell Taylor, to try and square the circle. Their solution, if that is indeed the word to use, consisted of plunging all out for conventional war, nuclear weapons be damned. A new strategic doctrine known as 'flexible response' articulated this approach and was officially adopted by NATO in 1967. Henceforward preparations for conventional war in Europe and elsewhere were to proceed as if the threat of nuclear escalation did not exist (van Creveld, 1991, pp. 12-13).

However, the threat of nuclear war still existed; therefore, a solution was desperately needed, and, as van Creveld pointed out:

> Serious attempts to design a 'nuclear warfighting strategy' again proliferated during the 1970s. They were, if anything, even more harebrained than their predecessors, but insofar as technical means for 'limiting' the damage now appeared to be available, they were also more dangerous. At the head of the team was Dr. James Schlesinger, secretary of defense under Richard Nixon and a man deservedly famous for his ability to 'articulate strategy.' He and lesser luminaries spent rivers of ink designing ways to use the new devices then being deployed, namely the MIRV (Multiple Independent Reentry Vehicle) and cruise missiles. The most important quality which distinguished cruise missiles and MIRV from ordinary ballistic missiles supposedly was their pinpoint accuracy (notwithstanding the fact that experimental devices aimed at test-ranges in the South Pacific sometimes turned up in Northern Canada). The capability of pinpointing hardened targets as small as missile silos permitted the power of the warheads to be reduced by an order of magnitude without any loss of destructive effect… (van Creveld, 1991, p. 8).

Furthermore, the development of strategic thought in terms of the possible application of nuclear weapons continued to evolve:

During this period the weight of strategic opinion was moving away from nuclear stalemate towards so-called 'warfighting' doctrines. Small, accurate warheads might be used to give the President 'flexible options'… Instead of going to full-scale war, the United States would be able to destroy a military here, perhaps even a small city there, acting at discretion and constantly monitoring the other side's reaction. The goal to aim for was achieving 'escalation dominance,' i.e., frightening the enemy into submission (van Creveld, 1991, p. 9).

Moreover, van Creveld points out that,

[Doctrine of 'flexible response'] has done somewhat as follows. Unless they [NATO] have conventional forces at their disposal, decision makers of Western (and Eastern) capitals could find themselves unable to respond to a crisis, however small. Alternatively even a small crisis might force them to resort to nuclear weapons, a less attractive possibility still. For a quarter century the declared rationale of maintaining strong conventional forces was to prevent this awful dilemma from arising. In case it did arise, starting the war with conventional forces would hopefully buy time for negotiation; this was known as raising the nuclear threshold (van Creveld, 1991, pp. 19-20).

But at the end of 1980s, "the particular wave of nuclear war fighting doctrines followed its predecessors and died. The cause of death was the same in both cases; namely, choking on one's own absurdities" (van Creveld, 1991, p. 9). When nuclear weapons became the major deterrent against direct aggression, the possibility of military conflict between nuclear capable states (and their allies) became unlikely. The consequences of this had a deep impact in general terms on military conventional-war capabilities and their applicability to any type of clash between world powers, even if it did not lead to direct armed confrontation. Thus, the contest or competition between superpowers, to some extent, shifted to third parties:

One factor affecting conventional war as waged by both the superpowers, increasingly, by other countries, is that nuclear weapons make their dampening effect felt in such wars even when nobody threatens their use. As a result, the United States for one has only been able to employ its conventional forces in case where its vital interests were *not* at stake (van Creveld, 1991, p. 14).

2.   Low-intensity Conflicts

The great majority of wars since 1945 have been Low Intensity Conflicts [sic]. In terms of both casualties suffered and political results achieved, these wars have been incomparably more important that any others (van Creveld, 1991, p. 25).

In his book *The Transformation of War*, Martin van Creveld defines the main features of low-intensity conflict:

The principal characteristics of low-intensity conflict (LIC) are as follows: First, they tend to unfold in 'less developed' parts of the world; the small-scale armed conflicts which do take place in 'developed' countries are usually known under a variety of other names, such as 'terrorism,' 'police work,' or – in the case of Northern Ireland – 'troubles.' Second, very rarely do they involve regular armies on both sides, though often it is a question of regulars on one side fighting guerrillas, terrorists, and even civilians, including women and children, on the other. Third, most LIC do not rely primarily on the high-technology collective weapons that are the pride and joy of any modern armed forces. Excluded from them are the aircraft and the tanks, the missiles and the heavy artillery, as well as many other devices so complicated as to be known by their acronyms (van Creveld, 1991, p. 20).

We face new challenges in the perspective of military doctrine, of which the principles of war, or *ways*, in synergy with *feasible means*, have to be successfully *acceptable* to reach the *suitable ends* of national policy and strategy. The main problem in formulating the concepts we must not only to consider how *we* are going to deal with a counterpart, but also understand how *they* are going to respond and adjust the doctrine (*ways* and *means*) accordingly.

Let us explore low-intensity conflicts from the U.S. military perspective. Having won WWII, the U.S. conventional armed forces were preparing to wage WWIII. According to a 'New Look' for American strategy instituted by Dwight D. Eisenhower, their role was minimized as the country gained dominance with the possession of atomic weapons. The role of the armed forces was reduced to waging small wars in favor of

escalating the conflict until the 'massive retaliation' could be undertaken (Max Boot, *The Savage Wars of Peace: Small Wars and the Rise of American Power* Basic Books, 2002, p. 282).

With no experience waging 'nuclear warfare,' basically it has been 'fought' only on paper, the question of mastering it is quite rhetorical. The U.S. military has several centuries of experience with so-called 'small wars.' In his book *The Savage Wars of Peace,* Max Boot presents the history of US experience waging low-intensity conflicts and argues that, although America during its history earned praise for waging big 'total' wars, which took the great effort of the whole nation to deliver massive eliminating strikes and quick victory with a minimum of casualties among their own forces,

> …there is another, less celebrated tradition in U.S. military history – a tradition of fighting small wars. Between 1800 and 1934, U.S. Marines staged 180 landing abroad. The army and navy added a few small-scale engagements of their own . . . Some were concluded in day or two; others dragged on for decades. Some were successful, others not (Boot, 2002, p. xiv).

To successfully fight this 'another-type' of war, the U.S. military needed to deliberately examine the lessons they had learned from small wars of the past, classic definition of which was offered by a British officer at the end of nineteenth century: "campaigns undertaken to suppress rebellions and guerrilla warfare in all parts of the world where organized are struggling against opponents who will not meet them in the open field"…

> The primary characteristic of small wars is there is no obvious field of battle; there are only areas to be controlled, civilians to be protected, hidden foes to be subdued… Often it means staying and assuming unfamiliar and probably unwelcome duties as administrators and tax collectors, road builders and agricultural advisers, police officers and judges, garbage collectors and public health workers. Most professional soldiers have no desire to be politicians (Boot, *Savage Wars*, 2002, pp.282-283).

The unclear and unusual duties as a part of a small war, the absence of big 'armies on empty plains, the inability to apply a decisive strike, and the absence of obvious features of success all made conventional warriors uncomfortable.

First military service to view counterinsurgency and other forms of small war fighting as an integral part of its mission was the Marine Corps. Based on their own experience in the early years of the twentieth century, and on a handbook that grew out of Britain's colonial experience, the marines in the 1930s wrote The Small Wars Manual (Boot, *Savage Wars*, 2002, p. 283).

The Marines' *Small Wars Manual* defines small wars as follows:

As applied to the United States, small wars are operations undertaken under executive authority, wherein military force is combined with diplomatic pressure in the internal or external affairs of another state whose government is unstable, inadequate, or unsatisfactory for the preservation of life and of such interests as are determined by the foreign policy of our Nation (*The Small Wars Manual*, 1940 edition, p.1).

Actual military action of the military in small wars, by *The Small Wars Manual,*

vary in degrees from simple demonstrative operations to military intervention in the fullest sense, short of war. They are not limited in their size, in the extent of their theater of operations nor their cost in property, money, or lives. The essence of a small war is its purpose and circumstances surrounding its inception and conduct, the character of either one or all of the opposing forces, and the nature of the operations themselves (*The Small Wars Manual*, 1940, p.1).

The Small Wars Manual also defines the stages of the 'small war':

The actual operations of small wars may be arbitrary divided into five phases as follows:

Phase 1. Initial demonstration or landing and action of vanguard.

Phase 2. The arrival of reinforcements and general military operations on the field.

Phase 3. Assumption of control of executive agencies, and cooperation with legislative and judicial agencies.

Phase 4. Routine police functions.

Phase 5. Withdrawal from the Theater of Operations" (*The Small Wars Manual*, 1940, p.5).

The best example for the U.S. military as a whole, in terms of its capabilities and its doctrine of the 'small wars' was the Vietnam War. It is possible to track, to some extent, the initial doctrine and approach with which the U.S. military first came into Vietnam, how events were developing and military approach was evolving, how different perspectives on the low intensity conflict's solution were competing with each other and what lessons were learned or unlearned in the war's aftermath.

Although the major U.S. conventional combat forces' deployment in Vietnam started in March, 1965, the American presence of military advisors in the region began much earlier. It started with handful of them and increased to 23,000 in 1964. The total number of U.S. troops in the region reached a maximum of 536,000 in 1968. So, while events were developing almost verbatim from *Small Wars Manual*, the manuals that combat troops brought with them could not prepare them for the actual fight they were going to undertake. As Andrew Krepinevich observed: FM 100-5, *Operations*, 1962 edition, contained two chapters relating to 'counterinsurgency,' but the counterinsurgency operations were primarily offensive in nature, with conventional forces' dominance in them; FM 31-22, *U.S. Counterinsurgency Forces*, 1963 edition, was written by the Special Warfare Center for Special Operations troops, not the Army as a whole; FM 31-16, *Counterguerrilla Operations*, 1967 edition, framed counterinsurgency doctrine within the borders of the Army Concept (Andrew F. Krepinevich, Jr., *The Army and Vietnam*, The John Hopkins University Press, Baltimore, 1986, pp.39-41).

Andrew F. Krepinevich, Jr. in his book *The Army and Vietnam* discusses these events more broadly:

> The basis for pacification was [U.S.] Military Advisory Assistance Group's 'Geopolitically Phased National Level Operation Plan for Counterinsurgency,' published on 15 September 1961. The plan provided a three-phase conceptual outline for counterinsurgency. <u>The first, or preparatory, phase involved the training of political cadres, economic and political reforms, and intelligence activities focused on the area targeted for pacification. The second, or military, phase involved clear-and-hold operations where the Viet Cong would be cleared from an area and government control established under the Civil Guard. In final, or security, phase the Self Defense Corps would take over from Civil Guard force and provide long-term security. . .</u>

In contrast to the MAAG plan, [R.K.G.] Thompson [head of British Advisory Mission in Saigon] argued that the focus of operations should be, not on the destruction of VC forces but on the political stability and security of the populated areas. The British proposal emphasized many traditional elements of counterinsurgency, particularly the use of stringent by Army of Republic of Vietnam clear-and-hold operations. The plan's intent was to win control of the population rather to kill the insurgents (Krepinevich, *The Army and Vietnam*, 1986, pp. 66-67, emphasis added).

Although the British proposal (with support of CIA representatives) was taken as operation SUNRISE, the operation itself, which started in March 1962, failed. It was primarily directed by Vietnam authorities into areas both heavily infiltrated by insurgents and close to their main base, instead of the recommended areas with minimum VC infestation. From that point big-unit strategy with maximum firepower became dominant for the U.S. military officials. "U.S. soldiers never lost the battle, but neither did they manage to pin down enough of the enemy so that a victory meant something" (Boot, 2002, p. 299), and sophisticated technology and overwhelming firepower really did not make any difference with regard to consequences.

Nevertheless, as Boot argues in his book that

the American war in Vietnam was not exclusively a big-unit, conventional boxing match. There was also 'the other war,' the pacification struggle, waged, on the American side, by an alphabet soup of agencies: the Central Intelligence Agency, the Agency for International Development, the U.S. Information Agency, the State Department… Many of the pacification programs [were] concentrated on struggle for 'hearts and minds (Boot, 2002, p. 304, emphasis added).

This argument makes little sense, because the prime (military) task of providing security for locals was undertaken with significant success only by a few. These few were the Marines with their Combined Action Program, which started in 1965 (Boot, 2002, p. 304). Krepinevich describes Marines' program as follows:

The Marine approach to counterinsurgency was further refined through the efforts of Capt. Jim Cooper, commander of a Marine company operating near the Vietnamese town of Chilai. After a period in which his unit conducted repeated sweeps, patrols, and attempted ambushes, Cooper became frustrated at his inability to separate the guerrillas from the population in the hamlet of Thanh My Trung. He decided to deploy his

Marines inside the hamlet and announced that henceforth the people would be protected from VC, for he had come to stay. Cooper increased the number of night patrols and ambushes and brought the villages' paramilitary Popular Forces (PF) unit under his wing, gradually making the local force assume a greater share of responsibility for village security. Before long the PF, along with the Marines, were engaged in continuous night patrols in the area immediately surrounding the village, stalking the VC, setting ambushes, disrupting the insurgents' plans and activities. The result was the VC's abandonment of the village.

It didn't take long for CAPs to catch on with the Marines. By 1966 there were 57 such units in I Corps, and the number expanded to 79 in 1967 (Krepinevich, 1986, p. 173).

As with any counterinsurgency, it took a lot of time, but the Marines used their *Small Wars Manual* and achieved both impressive results and little appreciation. The manuals interpretation by generals was quite different: "the Army's reaction to the CAP program was ill-disguised disappointment, if not outright disapproval, from the top down" (Krepinevich, 1986, p. 174).

The situation changed in 1968, when W. Westmoreland was succeeded by General C. Abrams – "he shifted the emphasis from big-unit "search-and-destroy" missions to population control. He refused to see pacification as 'the other war.' Under his new approach, which he called the 'one-war' strategy, he broke up divisional forces and sent them on extensive patrol and night operations in platoon and company strength" (Max Boot, 2002, p. 310). This change in emphasis more closely reflected the way marines were operating. At the same time, under direction of W. Colby (CIA), "the Phoenix program, working with South Vietnamese security forces, helped identify and eradicate the Communist political apparatus in the South's villages" (Max Boot, 2002, p. 310). The other positive improvements in Vietnam were made with significant support of local militias by the U.S. and land reform (also supported by the U.S.), which made the villagers more interested in securing their own lands.

But, under Congress's restriction, in 1973, soon after becoming more efficient in their military strategy and pacification policy, U.S. ground forces stopped active operations in Vietnam. In April 1975, with the fall of South Vietnam, Americans cut

down their presence. The U.S. <u>won on the battlefield</u>, but it was Hanoi, which "<u>achieved its strategic objective</u>" (Boot, 2002, p. 313). This was not the type of war the American public appreciated.

After the Vietnam War, the American approach towards war was implemented in the Powell Doctrine. Written by the Vietnam veteran, it

> consisted of severe preconditions that must be met before U.S. forces are committed to battle: (1) 'the United States should not commit forces to combat overseas unless particular engagement or occasion is deemed vital to our national interests or that of our allies'; (2) if U.S. does commit troops, 'we should do so wholeheartedly, and with the clear intention of winning'; (3) the armed forces should have 'clearly defined political and military objectives'; (4) the relationship between ends and means 'must be continually reassessed and adjusted if necessary'; (5) 'there must be some reasonable assurance we will have the support of the American people and their elected representatives in the Congress'; (6) finally, the commitment of U.S. forces to combat should be a last resort.' In succeeding years, another precondition became widely accepted as a part of the Powell Doctrine – all U.S. deployments must have an 'exit strategy' (Boot, 2002, pp. 318-319).

Therefore, Boot argues, every forthcoming American engagement became a one-battle war: cut-and-run. This had some particular shortcomings. In Haiti in 1994 "a mission designed above all to minimize the casualties accomplished little else" (Boot, 2002, pp.320-325). In the Balkans this '<u>win-and-get-out-quick approach</u>' narrowed actual military engagement to "'<u>lift and strike</u>' policy – lifting the arms embargo to the Bosnian Muslims and using air power to hit Serbian positions," and moreover, in Kosovo the U.S engaged in a cruise missile attack '<u>push-button war</u>' because, "the easiest way to minimize casualties is not to send troops at all" (Boot, 2002, pp. 325-327).

> The cold, brutal fact is that much present-day military power is simply irrelevant as an instrument for extending or defending political interests over most of the globe; by this criterion, indeed, it scarcely amounts to 'military power' at all. When it come to preventing acts of terrorism closer to home, the military services and their arms – fighter bombers, tanks, armored personnel carriers, etc. – are even less useful. All this is true of developed countries in both West and East, and also in either side of the equator.

Were our observer to ask for the reasons behind this extraordinary situation, he would find experts aplenty to explain them to him. No doubt the list would be headed by 'democratic traditions' and 'Western humanitarianism.' Both are laudable, to be sure, but there is a price to be paid. It would be stated that they prevented the United States from doing whatever was necessary to win in Vietnam: i.e., imprison its own dissidents, muzzle its press, mobilize the economy, put its population into uniform, and bomb the enemy back into the stone age. However, other factors besides democracy would also be cited as posing a problem. <u>America's civilian leaders would be blamed for misusing the country's military might, never telling the armed forces just what it was that they were supposed to accomplish</u> (van Creveld, 1991, p. 27, emphasis added).

The entire nature of the low-intensity conflict requires a thoughtful consideration of the strengths and weaknesses of both sides taking part in it. The balance of power in the conflict, especially shifted to a large extent in favor of a single party makes the waging of small war even more problematic. It sets restrictions, to some extent, on the freedom of actions of a stronger side, thus limiting the successful application of the very concept of improvisation, read – *the principles of war – the quest for victory…*

A war waged by the weak against the strong is dangerous by definition. Therefore, so long as the differential in force is not such as to render the situation altogether helpless, it presents few difficulties beyond the tactical question, namely, how to inflict the maximum amount of damage on the enemy without exposing oneself in open fighting. By contrast, a war waged by the strong against the weak is problematic for that very reason. Given time, the fighting itself will cause the two sides to become more like each other, even to the point where opposites converge, merge, and change place. <u>Weakness turns onto strength, strength into weakness.</u> The principal reason behind this phenomenon is that war represents perhaps the most imitative activity known to man. The whole secret of victory consists of trying to understand the enemy in order to outwit him. A mutual learning process ensues. Even as the struggle proceeds, both sides adapt their tactical methods, the means that they employ, and – most important of all – their morale to fit the opponent. Doing so, sooner or later the point will come where they no longer distinguishable… <u>Since the very act of fighting the weak invites excess, in fact, is excess, it obliges the strong to impose controls in the form of laws, regulations, and rules of engagement</u>… Arms may not be used except by explicit order under certain circumstances and against certain kinds of targets. Standing orders determine who may be hit, at what distance, and what kind of bullet; theoretically, to react to a molotov cocktail thrown at one it is first necessary to open the book and consult the relevant paragraph. <u>The net</u>

effect of such regulations is to demoralize the troops who are prevented from operating freely and using their initiative (van Creveld, 1991, p. 174, p. 176, emphasis added).

In addition, this one-sided approach and the difficulties of the militaries in developing and adopting new doctrines, or in even recovering the old ones reflects the nature of civil-military relations with regard to how military doctrine is suitable to help achieve the state's policy goals. One of the key factors influencing the ability of the military to successfully meet the expectations of civil decision-makers is the tendency of the military to work with relative independence from the latter. There is a quite recent notion of increasing the involvement of the civil sector into almost all military issues, incorporating the balance of political ends and military doctrine (*ways* and *means*) into the organizational structure of the military related decision-making organization. Another recent development is the relatively new phenomenon of the 'privatization' of military.

3.   Civil–Military Relations

A military doctrine may harm the security interests of the state if it is not *integrated* with the political objectives of the state's grand strategy – if it fails to provide the statesman with the tools suitable for the pursuit of those objectives (Posen, 1984, p. 16).

In general, when the political objectives are clear and the military tools are feasible and suitable for their achievement, the military doctrine is successful. It allows the military to effectively adapt their capabilities to the requirements of the strategy and policy (as in the case, for example, of Germans' *Blitzkrieg*). When clear and understandable priorities in the state policy meet the military capabilities to evolve, it allows the military to painlessly reshape the ways and means to a desirable configuration. But changes in the policy or a state's strategy are dependent upon variables in the domestic and international spheres, and are often considered an influence on military doctrine in two ways, as either innovation or stagnation.

Innovation and stagnation do not merely affect whether or not the means are at hand for the policies of statesmen. Should war come, they affect the probability of victory or defeat. Soldiers must plan to operate their forces with a great many considerations in mind – most of which can change.

Soldiers must identify an enemy, if only for planning purposes. If statesmen change the enemy's identity, the soldiers must change their plans. The same is true if the identity of allies changes. Changing enemies or allies may take less time than changing plans or procedures. Soldiers must also identify the military capabilities of any particular enemy. These may change quickly, and demand changes of one's own. Finally, technological opportunities, both for the adversary and for oneself, may change. Soldiers must identify which ones are worth exploring, and at what rate. Is a response in order, and how soon? Should the response imitate, or should a different technological counter be employed? Soldiering is a complicated business (Posen, 1984, p. 30).

According to Posen, the military and political sphere are separate (although mutually influencing) organizations. Each has their own special features that cannot be neglected. They emerge and develop according to their own special rules and patterns. Nevertheless, one of them is primary, another is secondary. In the political sphere, the military is the tool, but for the military the political sphere and its people are the environment.

Organizations come into existence for the pursuit of specific purposes. Purpose demands coordination, planning, and supervision… Organizations must pursue their purpose with people. [but] People are a great source of uncertainty. While purpose demands rationality, people may not be able to provide it… the environment spawns the organization; it produces the purpose that calls the organization into being. From the environment, contributions of people and material must be obtained (Posen, 1984, p. 43, emphasis added).

Thus the nature of the relationship between the military and their civil authorities, which are the embodiment of the people's power, is both problematic and wrought with compromise. The division of responsibilities between statesmen and the military, in simple words between those ruling the state and those protecting the state's interests by the particular means, could create a significant gap in the understanding of the systems of values and expectations of each.

Functional specialization between soldiers and statesmen, and the tendency of soldiers to seek as much independence from civilian interference as possible, combine to make political-military integration an uncertain prospect… This cause of disintegration is exacerbated because military organizations are unwilling to provide civilian authorities with

information that relates to doctrinal questions, especially those having the most to do with the actual conduct of operations. Thus, civilians are simply unaware of the ways military doctrine may conduct with the ends of state policy. Policy-makers may simply not know enough about the operational practices of their military organizations to either alter their political strategy or force changes in military doctrine that would bring it in line with the existing political strategy… Interpreting the external environment is the specialty of civilians. Building and operating military forces is the task of services. Setting priorities among the services, and among forces or branches within services, is a central task of grand strategy (Posen, 1984, pp. 52-53, emphasis added).

But the significant split of responsibilities between civil authorities and the military, reinforced by the desire for independence, leaves the latter with a sense of being left on its own, thus creating the uncontrollable processes within.

In the absence of civilian intervention, and the exercise of the legitimate authority that only the civilians possess, militaries will arrange a "negotiated environment"… Each service will prepare for its own war. Forces will not cooperate effectively. Neither will they be well balanced. A tendency will emerge for each service to set requirements as if it were fighting the war alone… Let to themselves, a group of services cannot make a military doctrine that will be well integrated with the political aspects of the state's grand strategy. They can simply assemble a batch of service doctrines… Different branches within a service may have different goals and interests (Posen, 1984, p. 54, emphasis added).

The ideas above are the fruits of the volume and complexity of the state's system, but they are relatively inter-controllable and interdependent. When Clausewitz was talking about the *trinity* of war, he meant the military, government, and people. The twentieth century added some new key players to the war-related business – the *military-industrial complex*.

The Cold War and the introduction of nuclear power and missile technologies in warfare increased the level of complexity in the contemporary military tremendously: "A decision-maker had not only to consider the technical capabilities of individual weapons systems, but also how they interact with each other." The huge amount of new information for consideration in military affairs and the need for efficient capabilities to deal with it gave the birth to "system analysis and the civilian defense analyst, who

claimed to have the answers to these questions" (Armin Krishnan, *War as Business: Technological Change and Military Service Contracting*, Ashgate, 2008, p. 15, p. 16).

In addition to the increased informational flow in the defense-related issues, the very notion of Military-Technological Revolution (MTR), defined in the late 1970s by Soviet General Nikolai Ogarkov, has set a new direction for possible change in the nature of military operations. "The Soviets spoke of reconnaissance-strike complexes, which refer to the integration of shooters and sensors for automated troop control." This idea was similar to the American concept of 'network-centric warfare,' which was developed after the 1991 Gulf War. Americans started a general debate in Western defense establishments about the necessity of realizing the potential of a Revolution in Military Affairs (RMA) (Krishnan, 2008, p. 17).

The growth of technical systems complexity provided time for the military, as it reduced the role of its actual operators. The systems tended more to work on their own according to their internal algorithms. The roles of the creators, designers, and trouble-shooters of provided systems became more important in order to keep them properly working and stable. They are using the most advanced technology in the history of the world to wage wars and sometimes 'the people who built it are the only ones who know how to fix it' (Krishnan, 2008, p. 19). Therefore, the role of private companies in providing technical support services has tremendously increased in the time since the information revolution of the 1990s (Krishnan, 2008, p. 20).

With the end of Cold War and the waning of the main threat on the ground (Soviet Union), the budgets of Western defense industries were significantly reduced in early 1990s. This led to cancellations [Crusader artillery, Comanche gunship, Sea Shadow stealth ship], a reduction of orders [Eurofighter Typhoon, B-2 Spirit, F/A-22 Raptor], and the transformations of major forces modernization projects [switch from SDI to National Missile Defense to Theater Ballistic Missile Defense]. As a consequence, the US witnessed a series of mergers among defense giants, which were necessary for their survival. The reduction of defense budgets led to the privatization of most advanced defense companies. Because they lost financial support from the state, they became more oriented and dependent on the market. This made the "defense business … also [more]

globalized because of international markets and investments, which led to international acquisitions and mergers of companies in the defense market," and made it more difficult for countries' authorities to exert control "over militarily relevant technologies and products, as different components are often developed and manufactured in several other countries" (Krishnan, 2008, pp. 26-27, p. 28, pp. 32-33, p. 34).

In the 1990s several weapons producers considered the life-cycle management of weapons systems very business attractive. For example, the prime contractors for the nuclear *Stockpile Stewardship and Management Program* are Lockheed-Martin and Bechtel (nuclear warheads maintenance) (Krishnan, 2008, p. 77). TRW (now Northrop-Grumman Mission Systems) received the state's contract to support and modify 500 Minutemen III. Lockheed-Martin, with Alliant Techsystems, is taking care of the Trident I and II submarine based nuclear missiles (Krishnan, 2008, p. 78). There are also companies, mainly manufacturers, which provide life-cycle support for conventional weapons. "The private companies continuously test weapons and their components, develop and run simulations in order to determine weapons degradation, schedule maintenance work, and regularly update weapons systems" (Krishnan, 2008, p. 80).

The main private participants in Combat Analysis and War gaming for the US military are the Santa Monica-based think tank RAND Corporation, the Institute for Defense Analysis, Booz Allen Hamilton, Northrop-Grumman/ Information technology (Logicon), CAIC, CACI, Anteon and BAE SYSTEMS/ Marconi Integrated Systems. They provide the military with a great variety of different war games. Most of today's war games are computerized. "Some of them do not involve any human players, while others are interactive computer games (humans playing against the computer), others are computer-assisted (humans playing against humans, but use computer modeling to determine outcomes of actions), and finally some of them are rather discussions and paper exercises" (Krishnan, 2008, p. 90).

Basically, the involvement of the private sector in military planning mostly concerns technical planning systems, intelligence support, or logistics planning. In some cases, the assist with the development of contingency plans or the exploration of 'lessons learned' (Krishnan, 2008, p. 95). For example, the think tank Institute for Defense

Analysis (IDA – "a semi-governmental organization, as it is an independent non-profit organization working exclusively for the US federal government" (Krishnan, 2008, p. 96)) made the analysis of the 'lessons learned' from the OIF campaign. Other cases include DFI International, which executed a military operational analysis of Iraq War and MPRI, which conducted the analysis of the aftermath of the 1991 Gulf War (Krishnan, 2008, p. 96).

Aside from the development of great military capabilities, military privatization led to some other, not so welcomed, co-consequences: <u>for the military in general it is the tremendous dependence on technology, for the defense industry it is significant dependence on organizations which develop and support the technology, for the troops on the ground it is permanent dependence on technology providers in weapons full-life cycle</u>. The privatization of defense industries, proliferation of technology, and as a consequence – military globalization – has created some new threats for the military:

> Firstly, they are no longer in control of the whole supply chain for the production of weapons… Secondly, it will be increasingly difficult to look through the complex global network through which military high-tech is created… Thirdly, with a growing dependence of armed forces on commercial technology and civilian infrastructure, it is a lot easier for adversaries to penetrate military systems and to disrupt them. Paradoxically, this means the more advanced weaponry a nation uses, the more vulnerable it becomes to informational warfare… It could be possible to disrupt military operations by attacking military suppliers and supply chains (Krishnan, 2008, p. 168).

This idea is very logical, but at the same time it is very controversial with regard to the well-accepted belief in the military that technology is the key to success and the precondition for victory. Nowadays, the main emphasis on the dominance on the ground has somehow been taken from human excellence and placed on the technological abundance. As the result, "military procurement decisions do often not reflect military requirements, but rather a desire to build what is technically feasible and then find the application for it. <u>It is often about solutions in search of problems</u>" (Krishnan, 2008, p. 172).

As a rule, soldiers are not going to go out of their way to reconcile the means they employ with the ends of the state policy. This is not necessarily to argue that they deliberately try to disconnect their means from political ends. Often, however, soldiers will elevate the narrow technical requirements of preferred operations above the needs of civilian policy (Posen, 1984, p. 53).

Thus, the recent addition of the fourth plenipotentiary key player in war-related 'business' made the military even more dependent upon civilians (and, obviously, vice versa) – its *superiority* became completely reliant upon the goodwill of this 'superiority' producers. Therefore, to some extent, the 'defense' industry can become dominant in this 'trinity'. Since both the government and the military are interested in successful cooperation with it, it has the potential to influence them both, not only in regard to *means*, but also in regard to *ways* and *ends*. The recent appearance of the military-industrial complex has deep roots, for at least as Krupp, Porsche, and Meibach were in cooperation with the German military in the aftermath of WWI. Today the vocabulary can be enriched by the notion of *politico-military-industrial groups*, which presumably widen the gaps between the separate branches of the military service, while at the same time moving them all together away from the *people*. Although there is no reasonable logic for this development, and the industry seems more interested in the military as its main consumer than the opposite, logic isn't necessary, for where is the logic, in the *arms race* or *nuclear deterrence*?

C.   CONCLUSION

As detailed in the previous section on the twentieth century, the imbalance of political ends and military doctrine, the lack of interagency integration in terms of the civil-military functional specialization, the competitive environment even within the single service, civil influence on the military not only in terms of the *ends*, but also in terms of the *means* simplify the entire approach for measuring the military successes .At the same time they undermine the entire nature of the principles of war, setting them up as too sophisticated ways of applying too complicated means. Edward Luttwak saw this tendency in 1984:

After all, tactics must be derived from operational method of warfare – be it *Blitzkrieg* or defense-in-depth, the hold-and-counterpunch or the agile defense. There can be no operational method of warfare unless it is derived from *theater strategy*, and that in turn cannot be framed except within a national strategy. No wonder that a unguided technical ambition dominates the scene… In the absence of strategy, it is substrategical choices that govern the form of the armed forces to deploy. In war, two great phenomena contend: maneuver, made of circumventing action, to bypass the barrier, to out flank the thrust, and to evade the main strength of the enemy in all things from weapon design to grand strategy. Such maneuver is the product of surprise, deception, and above all agility in thought, planning, and action. And then there is the other great phenomenon: firepower, assayed by volume, by accuracy, by lethality, and made of the industrial strength, transportation, and efficient logistic distribution. Throughout the history of war, blends of maneuver and firepower have contended in thousands of forms. Maneuver has generally been less costly in blood and treasure, but firepower was always the safe course and demanded merely an outright superiority in means. But even in the face of superior firepower and superior resources, maneuver in all its forms – tactical, operational, theater-strategic, and developmental, as well as the higher maneuver of grand strategy – has always held its own and often has elegantly prevailed (Edward N. Luttwak, *On the Meaning of Victory*, New York: Simon and Schuster, 1986, pp. 247-48).

The notion of 'maneuver' was resurrected several times during the twentieth century in *Blitzkrieg* doctrine, 'pentomic' warfare in terms of nuclear war, and the Marines' experience of small wars in Vietnam. But the increased complexity of the environment, the increased organizational complexity of the military left a little 'room for maneuver' at the end of the century.

[The fatal defect of maneuver] was that no numerical index can be attached to surprise, deception, or the outmaneuvering action. Thus no criterion of effectiveness stated in numbers can be defined for the purposes of systems' analytical computation. Firepower, by contrast, is very easily measurable, volume being tonnage, accuracy being hit probability, and lethality being a known factor. In countless mathematical models the 'combat value' of forces is thus measured exclusively by their firepower. The 'simulations' now widely used to define what weapon characteristics are needed, what type and size of forces are to be deployed, and even to assess what passes by the mane of tactics, are all in fact firepower-exchange computations (Luttwak, 1986, p. 248).

Therefore, it should be repeated from the previous chapter, that the main idea in strategy (and in the tactics that follow) is to define the *suitable ends*, then to recognize the *acceptable ways,* and finally then to find *feasible means*. This should not be done in the opposite direction; as it is often attempted to somehow adopt the *existing means* to the *desirable ends* by the *convenient ways*. In terms of nuclear war, the case was very sound: the overwhelming **firepower** appeared insufficient to face the challenges of that time's potential contemporary warfare, and forced a search for the solution in **maneuver**, in particular the past experience of others. The solution was found, but was not completely appropriate because of the nature of the subject. Having a huge imbalance in the '*ends-ways-means*' chain, the utmost power of means forced the policy to adjust the *ends* first from 'massive retaliation' to 'flexible response.' In the end, the best solution was the 'containment policy' and 'all-defense' NATO strategy in Europe.

The almost unexplored nature of low-intensity conflicts, their highly evolving character, and vulnerability to external influences has created brand new challenges for the military. Although some of the issues were solved in the past, they had existed in a different environment. But relying on the overwhelming firepower might change the very nature of the conflict's possible development, where weaker and inferior counterpart tends to shift the conflict in the dimension that is non-accessible for the **firepower**. Without appropriate contingency planning, with the pattern of 'real-time processing' the consequences, it frequently requires the military to make changes in doctrine, tactics while deployed and acting; when the solving process is unsuccessful it requires 'top-down' authoritative 'political' reaction, because it becomes impossible for operators on the ground to fix unfavorable situation on their own…

In conventional warfare everything is relatively easy, as the classical principles of war work quite well in it. But when we complicate conventional warfare with nuclear war or low-intensity conflict, the commonly accepted list of the classical principles of war can transform a winning framework into a 'restricting' and confusing one. What are the main objectives in a nuclear war – the enemy's forces or the vital centers of the enemy's homeland? What are the main objectives in a low-intensity conflict – distracting the enemy's forces or winning 'the hearts and minds' of the host population? Should we

target strength or weakness of the enemy? Should we change the environment in which he operates? Maybe it is wise to approach them indirectly, as Liddell Hart suggests – with strength through weakness, which will be discussed in more detail in the next chapter, and save some capabilities *just in case?* Then there are more questions, like – how ***this*** can be done? For the question of balance in offense and defense, 'offensive' is the principle of seizing and maintaining the ***initiative***. The meaning of the principle of 'mass' is disputed, as it can mean ***concentrating the physical forces*** at the decisive point and time or ***massing the effects*** of military efforts on the ground. Applying the principle of 'economy of force' is difficult when it is not possible to distinguish ***primary or secondary military objectives*** and decide upon ***decisive and indifferent points*** on the ground. When it is almost impossible to recognize the enemy in either a hostile or friendly environment, what is the point of following the principle of 'maneuver' in order ***to place the enemy in the position of disadvantage*** while trying ***to avoid his strong and aim his weak sides***? What is the need for the current type of 'security,' with its overwhelming nature, when instead of ***securing*** effective common efforts of all agencies on the ground it actually becomes the obstacle for them? Is the 'simplicity' of the Joint Operations in an environment of low-intensity conflict detrimental by definition? Is the 'unity of command,' with forces, especially of different branches, dispersed on the ground and decentralized desirable, compared to the concentrated patterns of conventional war? Are the relatively recently (in 2006) established new principles of 'restraint' and 'legitimacy,' designed for avoiding the collateral damage and legality, morality, and rightness of means really a ***quest for victory***, and are really achievable in such a complicated environment? Thus, to extend Luttwak's words, sometimes the varied powerful *means* without clearly defined and correctly appreciated *ends* are useless, even when they are applied to the most 'successful' framework of *ways*, where in some extreme cases the *ways* do not even matter.

> Today the basic conditions of war seem to change almost from month to month. It is therefore hard for the professional soldier to avoid being preoccupied with means rather than ends (Brodie, 1959, p. 17).

The contemporary environment of the twenty-first century is an accumulation of all the complications of previous Ages. It encompasses all the historical and conceptual knowledge, and has its own notions of new concepts, such as 'network-centric warfare.' It places high value on the 'on-the job-training' for the military. It takes elaborated interpretations of some classical maxims of the past and gives them new, more efficient meanings and content. It favors a more general perspective on them as a single complete set of considerations for operational *improvisation* in terms of their place in engagement, tactics, doctrine, and strategy; it even considers it possible to view them from the perspective of logic and philosophy…

IV.   THE PRINCIPLES OF WAR RECONSIDERED

As discussed in the previous chapters, military thinkers have tried throughout history to perfectly fit military means and ways into their contemporary environment (political, social, technological, etc.) in order to achieve their goals.

In some cases the ways of waging war depended upon the state's organization, available resources, geographical conditions, vital interests, and the overall sense (or purpose) of national (tribal, ethnic) existence. They fit war into their policies. The evolution of war-fighting concepts was highly related to the evolution of military means. Although states were not always successful in rapidly adopting new capabilities, there was a constant cooperation between technological development and military concepts. It is important to note that the technological development was not limited only to adopting the emerging means of destruction; it also quite successfully applied the advances that might allow more effective support and multiplication for the capabilities of existing military means. Therefore, some states were changing their strategy, some were changing the doctrine within the boundaries of their existing strategy, some were focused on fitting the technological advances into their existing 'way of war,' and some were trying to reshape their 'way of war' to fit their new capabilities…

A.   THE EVOLUTION IN APPRECIATION OF THE PRINCIPLES OF WAR

> Warfare is an outgrowth of the human soul, and the ironic, paradoxical, sometimes chaotic nature of the soul inflicts upon the military art a maelstrom of dramatic contradictions, fleeting insights, and ever-changing truths. Our business is redefined every day. Sometimes we notice; more often we do not (Robert R. Leonhard, *The Principles of War for the Information Age*, Novato: Presidio Press, 1998, p. 7).

From the beginning of warfare, there was strict adherence to the principles of war waging based upon the particular conditions of an environment. The contemporary perspective of the principles of war is quite varied. From one point of view, they are absolute and time-resistant. From another they are seen as an obsolete historical attribute

of the past wars. Some consider the classical principles of war applicable only to the very engagement; In other words, they are often seen as rules for the battle.

There have been valid points made about the necessity of rethinking the classical principles of war for their best fit into the contemporary environment. One perspective explains the paradoxical nature of war, its paradoxical principles, laws, and well-known and widely accepted notions. Another perspective examines the complex meaning (nature) of war and makes the point that the study and analysis of war is impossible through the fixed theoretical framework of principles and espouses only a consideration of its nature.

The entire process of the study of war is similar to the process of assembling a puzzle. One has a lot of different elements, concepts that developed over centuries. As standalone objects, they have some shape and content. The main objective is to find the most appropriate place for each of them in the general picture. To do this, one must consider the best fit for the shapes and contents of neighboring elements and gain a sense of the overall picture.

As it was already said in this study, there is no unanimity among theoretical views of the principles of war. Opinions differ about the number of them, their names, their meanings and interpretations. Ideas vary about their relevancy to war or war waging, – to the stage of war or to the process of war fighting. Opinions diverge as to whether they are strategic, doctrinal, or tactical concepts; which particular principles apply to war in general and which ones only to the battle in particular. There is disagreement as to whether they are feasible, obsolete, or, if it is even possible to have them as a theoretical concept – there is little consensus regarding whether they are applicable to this process of highly complex area of human activity – war… But regardless of reasons for war, everybody is interested in how to wage it successfully, where the meaning of real success in war is somewhere between *how to win* and, for at least, *how not to lose*. Moreover, it cannot be overlooked that the notion of human nature, which 'surprisingly' appears to be highly involved in war-fighting, is emerging in recent theoretical writings as the main and sometimes the only decisive factor that regulates all dimensions of violent conflict. There

is a strong belief that a clash of interests cannot be resolved by machines fighting machines; it forever will remain a human business.

Therefore, there appear to be some questions. Should the principles of war remain in their existing forms and serve the purpose for which they had been formulated? Should they be reconsidered and serve as the framework for aftermath analysis of battle, operation, campaign, war, or even policy? Or should the very principles be reframed into something general that would consider all the possible factors involved in the fighting as the most bright and dramatic human activity? This could possibility generate some new 'wisdom of war,' which could not only teach us how to effectively fight the enemy, but also how to avoid the fight and achieve our desired aims in other ways. Just as the notion of nuclear war has been dismissed as a possible solution for the any kind of conflict of interests, although the nuclear weapon itself still remains the valuable deterrent of full-scale conflict, maybe there will be a day when the very notion of war will have the same fate?

Although there are a lot of wars being fought around the globe with primarily mechanical killing means, war is gradually coming into the 'mind'-dimension and becoming, in particular, the embodiment of 'will-to-will' competition. Throughout history, war was always studied with regard to this notion. Through the years, military thinkers have tried to institutionalize the utmost nature of war as a part of human consciousness, and to observe war as something more than a clash of physical forces. One of the reasons for this phenomenon was a transition of the military thinker from actual war fighting to the theoretical work on war, when the gap in nature between the former and latter appears to become principle. As Bernard Brodie pointed out in regard of this issue:

> Where the Clausewitz was the philosopher, wrestling with conflicting insights into apparent contradictions, Foch was the instructor, intent on indoctrination. His aim was not to explore but to persuade, which meant inevitably to oversimplify and exaggerate (Brodie, 1959, p. 40, emphasis added).

Almost all of the strong advocates of the particular 'winning frameworks' for war-fighting in the past have had very particular methodological and conceptual approaches upon their thinking and writing. Yet, in the conclusions of their research, they paradoxically stated that the ultimate relevance of their work was only for the particular time or for the particular stages of war fighting or statecraft. Some went beyond this and confusingly pointed out the complete irrelevance of their work for the future implications.

Here are only some of the examples:

In the Art of War, **there are no fixed rules**. These can only be worked out according to circumstances (Sun Tzu).

Theory must also take the human factor into account, and find room for courage, boldness, even foolhardiness. **The art of war** deals with living and with moral forces. Consequently, it **cannot attain the absolute and certain** (Carl von Clausewitz).

There are [conclusions] in my historical chapters, observations on operational plans that are based on the system of magazines, and on all the dispositions that can result from the system; but it should be agreed that if my conclusions are contrary to the maxims established in those days by experience, it is also true that **the methods of the generals cannot help but be in accord with the principles recognized at the time when they were operating**. Their methods, which I shall try to present objectively, should not then be the scale on which my conclusions should be weighed. It is only in the chapters containing my personal observations that the true principles that guide me can be found; all the rest is relative to time and to place (Antoine-Henri Jomini).

The truths of war are absolute, but the principles governing their application have to be deduced on each occasion from the circumstances, which are always different; and in consequence **no rules are any guide to action** (Sir Winston Churchill).

It is not necessarily damning to the principles of war that they are applicable also to other pursuits but it does indicate that **such principles are too abstract and too general to be very useful as guides in war** (Bernard Brodie).

They are practical guides, not abstract principles. Napoleon realized that only the practical is useful when he gave us his maxims. But the modern tendency has been to search for principles which can each be expressed in a single word—***and then need several thousand words to explain them***… The longer one continues the search for such omnipotent abstractions, the more do ***they appear a mirage, neither attainable nor useful—except as an intellectual exercise*** (Basil H. Liddell Hart).

This pattern became more significant in the twentieth century, when the contradicting and paradoxical nature of war has come into play. The emerging of concepts of mechanized warfare in the 1910s, strategic bombing in the 1920s, blitzkrieg in the 1930s, nuclear warfare in the 1950s, and combined warfare in the 1980s were logically followed by the concept of information warfare in the 1990s. These concepts are a result of the constantly demanding consequential reconsiderations of the very notion of war and its principles and the intuitive sense of the necessity of reframing the concepts of war in order for them to influence the process of its waging, which allows humans to control, predict, and exploit not only the war's outcomes, but also its likelihood.

B. SCIENTIFIC STUDY OF WAR

Throughout human history people have raised the 'theory' of war an art form. All the attempts to create the science of war failed under the pressure of social and technological change. The strong distinction of the military from the statecraft created inconsistency in policy. Too much civil involvement in military issues created disorder and uncertainty on the battlefield. A 'mechanistic' approach to warfare failed to recognize the significance of the human factor in war. An overly aggressive approach to warfare undermined the possibility of a mutually beneficial war end-state. The excessive resort on one's own strengths prevented from detecting the enemy's successful adaptation to the means which previously has been shattering him. The failure to understand the dynamics of protracted warfare halted the pattern of victorious single battles for victory in war. Relying on single overwhelming means in warfare made the main objectives of war unachievable. A one-sided approach to war created a false pattern in its execution, and therefore in its study as well.

The cause-consequence chains of events made it possible to apply elaborated classical-type maxims and principles only in relatively stable environment. The inability to predict the end-state of future wars narrowed the perspective of the scientific study of war. The most successful areas of research included only analysis of past and present wars' lessons learned. Researchers attempted to overcome their lack of relative explicit knowledge and necessary experience by increasing the complexity of their approach.

Nowadays, the various dimensions of engagement, multiple tasks in different environments, increase of informational flow, complexity of cooperation, extremely sophisticated technology of command and control systems, and universality of skills for the single executer on the ground have only reinforced uncertainty of the unknown. The information management systems rapidly became overfilled by the relative information, most of which was not relevant. The informational system became not only info-gathering, but also info-producing. The complexity of warfare reduced the efforts of processing the information to its collecting and systemizing. Is it still possible to scientifically study war? Or will we simply continue accumulating knowledge about war without generating applicable laws and predictions which may come true? Has the entire scope of past scientific study of war been wrong? Is the tactics-strategic approach to the analysis of war evolving by itself? Must all the emphasis in the study of war shift to the sphere of its deep integration into politics? Maybe instead of trying to reshape the classical principles of war to the current and future environment it would be better to study the ever-living very nature of war, and reorganize the existing knowledge for its proper use in war management?

"Classical evolutionary epistemology states that our knowledge of our surroundings proceeds by the generation and elimination of ideas" (Roy A. Sorensen, 1998). Alan Issak proposes the political science approach upon the managing the knowledge:

> …if we want knowledge of the world, we have to assume that the world is coherent, that there are certain recurring relationships which can be expressed in such proportions as 'if A occurs, B occurs.' This is a causal relationship, and it is what the scientist is searching for. If scientific knowledge is knowledge of such relationships, then the principle of

determinism, or something like it, is a necessary starting point. However, it must be emphasized that the principle is not itself a scientific law which has or can be substantiated but instead is an assumption which directs the scientist's work (Alan C. Isaak, *Scope and Method of Political Science*, Homewood Ill.: Dorsey Press, 1981, p. 27).

Let us therefore try to apply this kind of consideration to the study of the hypothesis of the unconditional validity of the classical principles of war. For this we assume in the science of war, that for war to be waged effectively, it is supposed to be subordinated to some rules or principles, or at the very least be explainable and have its ends predicted precisely. How can one, from the perspective of a political scientist-beginner, examine the validity of the existing nine classical principles of war? Let us start with observation – one of main sources for the knowledge for the scientist:

> If the world is what we are interested in, then it is the world we must examine. Describing and explaining politics implies speaking about and basing our explanations on what has been observed (directly or indirectly) about politics. This means that every scientific statement is in one way or another based upon an observation (Isaak, 1981, p. 28).

What does observation of the principles of war tell us? They were derived from centuries of military knowledge and experience. Although they were valid for the particular time and conditions in which they were written, they are not necessarily applicable for all the times and circumstances. Why? Too many factors, which are conditional for their applicability, are changing. But what are these factors? Let us approach war as a process, not a state of conflict. According to Clausewitz, war has dual nature: objective and subjective. Antulio J. Echevarria defines them:

> The objective nature consists of all aspects of a phenomenon that are universally valid; the latter concerns those that are true only for a specific time and space. The objective nature of war thus includes those elements – violence, friction, chance, uncertainty, fear, and exertion, for example – which all wars have in common, no matter where and when they are fought. These elements are universally present, though the degree to which they are present and the influence they exert may vary… By contrast, the subjective nature of war encompasses those elements – military forces and their doctrines and weapons, for example – that vary from war to war, and thus make all wars unique… Under Clausewitz's concept, the objective

73

and subjective natures of war interact continuously (Echevarria, "Principles of War or Principles of Battle?" *Rethinking of the Principles of War*, McIvor (Ed), 2005, pp. 71-72).

Thus we have two groups of factors – psychological, which are relatively stable, and social and technological, which constantly evolve. The paradox here for the political scientist is that the ***constant in the observation is the hardest subject to explore, and the easiest subject is a variable***. Moreover, if the factors are continuously interacting, it makes the task more difficult to accomplish. One must also take into account that the subject of inquiry – the principles of war – mainly encompasses the subjective nature of war and very lightly touches the objective one. Or maybe, since the classical principles emerged from a particular synergy of the subjective and objective natures of war, and they were driven mostly by the subjective, they are, within the evolving circumstances, no longer valid. Since they no longer fit the mostly 'subjective' environment, are they already outdated and do they need to be replaced or, at least, reconsidered? Therefore, the researcher should undertake a complex approach in the study of the given hypothesis. He should attempt to study all the factors separately, using applicable knowledge from relative sciences, and then assemble the results to create common knowledge afterwards. Can the political scientist accomplish this task? Are history, psychology, and sociology that helpful? Or should one just study the technology, as it is the most rapidly developing factor?

Technology is currently the main focus of study to improve war-fighting effectiveness, although it often has little to do with decisive principles of war… One of the most technologically intensive areas in the defense industry is modeling and simulation. For the military there are four main applications of modeling and simulation. It is used for the development of weapons systems, including testing and evaluation; military training; combat analysis and war-gaming; and battle-management (Krishnan, 2008). The only problematic point is that the true task for simulation and war gaming is not to teach how to *purposely* wage the war, but how to wage it *properly* – that is the existing machinery, equipment, and communication facilities. Because as Roy A. Sorensen states,

For simulation is a demonstration composed of an analogy and indirect experiment. Instead of experimenting directly on the relationship between Fs and Gs, one experiments on the analogues relationship between Hs and Js. Experiments are cognitively impenetrable in the sense that they can give results independent of theory, and indeed, are valued for their ability to overrun theory. Therefore, expect *verstehen* [understanding, interpretation, *German*] to frequently generate the unexpected. Game theory reasoning predicts that participants in a prisoner's dilemma would never cooperate. But most people feel that they would cooperate and an anomalously high level of cooperation has been subsequently documented in direct experiments (Sorensen, "Self-strengthening Empathy," *Philosophy and Phenomenological Research*, vol.58, no.1 (Mar., 1998), pp. 75-98).

The attempts to find analogies in scientific studies of human activities can also drive to some contradictory conclusions. If we take the model of economic competition as a subject for testing the principles of war (as far as war can be considered a competition of wills), the analogy, to some extent, seems very reasonable and practically valid for building the economic competition strategies, as long as we target the counterpart's will to 'fight.' But the difference in the natures of these two human activities, that is the creative nature of business and destructive nature of war (Krishnan, 2008), creates some doubts about the validity of creating an analogy to use their mutual interaction of knowledge and experience to create commonly applicable theories.

The existing methods of analysis of war have too many assumptions and simplifications, mostly in the estimates made beforehand and reconsideration of their rightfulness afterward. Therefore they have little value for application. Moreover, nowadays there is too much information, and the only hopes are that somehow quantity could transform into quality or that false knowledge could be eliminated through the process of trial and error. The statistical approach lacks a multitude of cases; game theory lacks live reality; the mathematical approach lacks mutual interaction; and the historical perspective lacks practical applicability. In current circumstances, the approach to a scientific study of war cannot be one-sided or narrowed to particular knowledge areas. As long as any approach doesn't provide the right answers for all questions, a collective approach must be taken. A collective approach would allow possible cooperative,

flexible, and inquiring nature of a multi-dimensional perspective to serve as one of the possible sources of true knowledge for the study of war.

C.   BACK TO THE FUTURE

Basically, one valid way to reconsider the present and predict the future with relative precision is to study the past. Studying the past not only satisfies our interests, it also provides knowledge of past lessons and particular experiences explored. The gradual stalemate in WWI forced military thinkers to reconsider their time common approach to war waging. One possible issue was the obvious difference in the appreciation of the human factor in war, especially the excellence of skills and knowledge of the regular soldier. In the past, war outcomes literally depended on the capabilities of the single warriors, but in massing armies of the nineteenth century predominantly only numbers mattered. The ultimate outcome of their approach forced the military to step back and think out what was wrong in the theory. Some critical minds found a way to exit the contemporary deadlock of the war.

> It became evident there was something wrong with the theory, or at least with its application—alike on the planes of tactics, strategy, and policy…
>
> Besides these negative factors there were also several positive reasons to prompt a fresh inquiry. One was the decisive part that sea-power had played, without any decisive battle at sea, in producing the enemy's collapse by economic pressure.
>
> Two other reasons arose from new factors. The development of air forces offered the possibility of striking at the enemy's economic and moral centres [sic] without having first to achieve 'the destruction of the enemy's main forces on the battlefield'…
>
> At the same time, the combined development of the petrol motor and the caterpillar track opened up a prospect of developing mechanized land forces of high mobility… Mechanized land forces of this new kind might also provide— like air-power, though in a lesser degree—the possibility of striking direct at the heart and nerve-system of the opposing country (Liddell Hart, *Strategy*, New York: Frederick A. Praeger, Inc., 1968, p. 358).

The new approaches gave the new life to the concepts of 'intellectual war,' returned her the aura of ***art***, and took away the gloom of the simple slaughter mean. But, in the beginning of the twentieth century, the inquiring minds of the 'revolutionaries' in the way of war discovered these advances were relative. Some of the first signs of the rediscovery of irrelevancy with regard to general concept of a 'winning framework' in terms of evolutionary environment appeared when J.F.C. Fuller changed his focus on the absolute winning nature of the mechanized warfare before it had been fully implemented. As Brian Bond and Martin Alexander pointed out, "Fuller, in his excellent final word on mechanization, *Lectures on Field Service Regulations* [1932], also suggested that ***the antidote would be found to tank offensives and armies would again be faced by siege warfare***," although at the same time "Fuller anticipated that stalemate between mechanized forces would be transformed into the mobile defense of large areas. From these secure areas or zones, air attacks would then be launched on the enemy and his people" (Bond, B. & Alexander, M., "Liddell Hart and De Gaulle: The Doctrines of Limited Liability and Mobile Defense," *Makers of Modern Strategy*, Peter Paret (Ed), Princeton: Princeton University Press, 1986, p. 612). The very idea of 'air attacks,' that Fuller mentioned, can be interpreted as an attempt to escape from the current stalemate in warfare. At the time of its emergence (1921), mechanized warfare and its advantages were not so sound. Edward Warner presented the outline of the Guilio Douhet's theory of war the in following way:

> (1) modern warfare allows for no distinction between combatants and noncombatants; (2) <u>successful offensives by surface forces are no longer possible</u>; (3) the advantages of speed and elevation in the three-dimensional arena of aerial warfare have made it impossible to take defensive measures against an offensive aerial strategy; (4) therefore, a nation must be prepared at the outset to launch massive bombing attacks against the enemy civilian morale, leaving the enemy government no option but to sue for peace; (5) to do this an independent air force armed with long-range bombardment aircraft, maintained in a constant state of readiness, is the primary requirement (David MacIsaac, "Voices from the Central Blue: The Air Power Theorists," *Makers of Modern Strategy*, 1986, p. 630, emphasis added).

Both the concepts of 'mechanized warfare' and 'strategic bombardment' happened to be quite long-living. Blitzkrieg's effectiveness was extensively tested and the concept itself widely experienced; it proved to be very effective, but appeared to be very sensitive to the time and space. Therefore it had limited implications as a particular *tool* of war fighting and cannot be considered as the main 'way of war.' 'Strategic bombardment,' despite its soundness, was not completely effective. As Liddell Hart, for example, pointed out about the effectiveness of strategic bombing in WWII.

> The actual effect which this kind of bombing achieved as a contribution to victory is very difficult to assess despite much detailed investigation…
>
> But it seems fairly certain, even on a reasonably favourable [sic] view of its effects, that they were less decisive than the action of air forces against strategic objectives—in the military sphere… (Liddell Hart, 1968, p. 362, emphasis added).

At the same time, the overall effects of both concepts were evaluated also by Liddell Hart:

> In general, the nearer to the force that the cut is made, the *more immediate* the effect; the nearer to the base, the *greater* the effect…
>
> In general, the longer the distance that has to be covered, the greater the ratio of natural obstacles, but the less the ratio of opposition.
>
> A further consideration is that while a stroke close in rear of the enemy force may have more effect on the minds of the enemy troops, a stroke far back tends to have more effect on the mind of the enemy commander (Liddell Hart, 1968, pp. 344-45, emphasis added).

The more immediate effect on armed forces requires the faster adaptation of a counterpart to withstand it. Thus the effect is relatively short-lived if it is not pursued sufficiently. The greater effect of the 'revolutionary' aerial way of war lies far beyond the well-accepted sphere of war fighting. It is relatively long-term, and can cause opposite consequences in general terms of war. Liddell Hart explains this pattern as follows:

Here we are brought to the fundamental difference between strategy and grand strategy. Whereas strategy is only concerned with the problem of winning military victory, grand strategy must take the longer view—for its problem is the winning of the peace…

Air action against an object that is primarily 'civil' is action on the plane of grand strategy... It would be an unwise choice as a military aim even if its ability to decide a war were more conclusively proved… (Liddell Hart, 1968, p. 362, emphasis added).

During warfare's 'grand' transition in the Great Interwar period, there appeared the tendency of so-called "reversed" development of war fighting concepts. This would view the evolution pattern of warfare, presented by John Arquilla and David Ronfeldt: "progressive development of four fundamental forms of engagement: the melee, massing, maneuver, swarming" (Arquilla & Ronfeldt, *Swarming*, RAND, 2000, p. 7). But in the interwar period it took an interesting turn – from the massing at the beginning of the twentieth century through the mechanization of forces, but then back to some kind of "organized melee" of the past: when, in order to overcome the stalemates of WWI, there have appeared the attempts "to restore mobility, minimize casualties, and secure a speedy victory by means of small, elite, professional mechanized armies" (Bond & Alexander, 1986, p. 622), and in 1932 it drove to even favoring the ideas of disarmament, because it could "by restoring small and handy armies, bring back art, leadership, 'gentlemanliness,' and the real warrior spirit into warfare" (General von Blomberg, quoted by Bond & Alexander, 1986, p. 622).

The same phenomenon was discovered in a relatively recent conventional military campaign:

It seems likely that the rapid development of microcomputer and sensor technology will result in a growing proliferation of sophisticated non-nuclear weapons [that] will cause armies to take a step back into an older, more professional style of warfare. The new weapons need elite, highly trained soldiers to use them effectively. They do not need the mass armies that provided the cannon fodder of the two world wars. The Falklands campaign of 1982 provides some additional evidence that the winds of change are blowing in this direction. The Argentine air force, a small elite force using precise weapons with daring and skill, did great damage to the invading forces, while the Argentine army, a mass army of conscripts, was

79

crushingly defeated. <u>It seems that modern technology is taking us back toward the eighteen century, toward the era when small professional armies fought small professional wars</u> (Freeman Dyson, quoted by Gordon A. Graig and Felix Gilbert, "Reflections on Strategy in the Present and Future," Peter Paret (Ed), *Makers of Modern Strategy*, 1986, p. 868, emphasis added).

Thus, the conceptual content of war fighting principles has not really changed over time. The names may change, but meanings are the same. The point is when we indulge in the great temptation to indoctrinate and fix them to the contemporary military forever, we ignore the evolving nature not only of the environment, but of the fundamental concepts as well. The only sign of the correctness of indoctrinated principles is their actual 'successful' applicability:

> We point to successful armies that didn't mass, and we claim that they "massed effects." We consider victorious warriors who won while on the strategic defense, and we point to their occasional use of offensive tactics to prove the efficacy of "Offensive." We view the enormous complexity of Operation Just Cause or Desert Storm and yet claim that they were true to the principle of "Simplicity." We point to disunited, successful armies as proof of "Unity of Command." We permit the most dull-witted frontal attacks to prove "Maneuver," ... ***as long as they work*** (Leonhard, 1998, p. 8, emphasis added).

Although the rules and principles of war seem to evolve, their nature remains the same. If it didn't, all the wars in history would not have happened, or they would have been total disasters. The main point is to try to define this 'immortal' content of the real theory of war, which competently cover all the aspects related to war and not reduce the entirety of war-knowledge to a list of its sound 'classical' principles.

One of the attempts to rethink the matters of war from an independent perspective was made by Basil Henry Liddell Hart, who was named by one of his biographers, Alex Danchev, no less than an "Alchemist of War." Azar Gat called Liddell Hart "perhaps the most famous strategic theorist of the twentieth century" (Gat, 2001, p. 645). His contribution to the military theory is invaluable. In particular, in his comprehensive work on *Strategy,* Liddell Hart presents a comprehensive study not only on strategy, but on war itself. He speculates on its intellectual and reasonable nature, and compares it to his

contemporary well-accepted 'absolute' Clauswitzian perspective of military thinking. He studied the entire history of way (up to his contemporary period) to see the ***real*** regularities in war-waging. In particular he was concerned with the causes of success and failure. He dismissed the Clausewitzian theory on war:

> Clausewitz, in his monumental work, *On War*, defined it [strategy] as 'the art of the employment of battles as a means to gain the object of war. In other words strategy forms the plan of the war, maps out the proposed course of the different campaigns which compose the war, and regulates the battles to be fought in each.'

> <u>One defect</u> of this definition is that it intrudes on the sphere of policy, or the higher conduct of the war, which must necessarily be the responsibility of the government and not of the military leaders it employs as its agents in the executive control of operations. <u>Another defect</u> is that it narrows the meaning of 'strategy' to the pure utilization of battle, thus conveying the idea that battle is the only means to the strategical end. It was an easy step for Clausewitz's less profound disciples to confuse the means with the end, and to reach the conclusion that in war every other consideration should be subordinated to the aim of fighting a decisive battle (Liddell Hart, 1968, p. 333, emphasis added).

His main approach illustrated a preference for the indirectness in war, on all levels of its processing. Extensively criticizing Clausewitz and his followers for their particular directness, Liddell Hart logically builds up his own theoretical framework of his study on war.

> History shows that gaining military victory is not in itself equivalent to gaining the object of policy. But as most of the thinking about war has been done by men of the military profession there has been a very natural tendency to lose sight of the basic national object, and identify it with the military aim. In consequence, whenever war has broken out, policy has too often been governed by the military aim—and this has been regarded as an end in itself, instead of as merely a means to the end (Liddell Hart, 1968, p. 351).

As long as the subject of his treatise is military strategy, he gradually, layer by layer, constructs the 'grand' perspective on its role in war-waging. He views it in very close relation to policy and statecraft in particular – defining the main aim, or object, of war as a 'better peace' (Liddell Hart, 1968, p. 351). Liddell Hart dismissed the previous

stable theory and tried to redefine all the matters of war from his own perspective. He defined the element of authority in war in terms of levels of decision-making, closely tying war fighting to policy, in particular to the strategy as "the art of distributing and applying military means to fulfill the ends of policy."

> As tactics is an application of strategy on a lower plane, so strategy is an application on a lower plane of 'grand strategy'… the term 'grand strategy' serves to bring out the sense of 'policy in execution'. For the role of grand strategy—higher strategy—is to co-ordinate and direct all the resources of a nation, or band of nations, towards the attainment of the political object of the war—the goal denned by fundamental policy…
>
> Grand strategy, too, should regulate the distribution of power between the several services, and between the services and industry. Moreover, fighting power is but one of the instruments of grand strategy—which should take account of and apply the power of financial pressure, of diplomatic pressure, of commercial pressure, and, not least of ethical pressure, to weaken the opponent's will…
>
> Furthermore, while the horizon of strategy is bounded by the war, grand strategy looks beyond the war to the subsequent peace (Liddell Hart, 1968, pp. 335-336).

Liddell Hart criticized the previous one-sided approach to war, reconsidering the entire philosophy of war in terms of the changed main goal from the 'destruction of enemy's force' to the achieving 'better peace,' which ultimately covered the necessity of considering the war outcomes as one of the main issues.

> The object in war is to attain a better peace—even if only from your own point of view. Hence it is essential to conduct war with constant regard to the peace you desire…
>
> If you concentrate exclusively on victory, with no thought for the after-effect, you may be too exhausted to profit by the peace, while it is almost certain that the peace will be a bad one, containing the germs of another war…
>
> The risks become greater still in any war that is waged by a coalition. For in such a case a too complete victory inevitably complicates the problem of making a just and wise peace settlement… The divergence is then apt to become so acute as to turn the comradeship of common danger into the

hostility of mutual dissatisfaction—so that the ally of one war becomes the enemy in the next (Liddell Hart, 1968, p. 366).

Following this pattern of the development of war, he defined the main, contemporary features of war fighting…

Until the end of the eighteenth century, a physically concentrated advance, both strategic (*to* the battlefield) and tactical (*on* the battlefield) was the rule…

Towards the end of the nineteenth century, with the development of fire weapons, the tactical advance became dispersed, i.e. in particles, to diminish the effect of fire. But the strategic advance had again become concentrated…

…new conditions—air power and motor power—point to its further development into a *dispersed strategic advance* (Liddell Hart, 1968, pp. 345-346).

His approach is in particular very 'new aim'-oriented, and presents the new way to achieve them.

Instead of the simple idea of a concentrated stroke by a concentrated force, we should choose according to circumstance between these variants:

(i) Dispersed advance with concentrated single aim, i.e. against one objective.

(ii) Dispersed advance with concentrated serial aim, i.e. against successive objectives.

(These will each demand preliminary moves to distract the enemy's attention and forces, unless the possibility of taking alternative objectives enables us to rely on such distracting effect being produced already by the enemy's perplexity.)

(iii) Dispersed advance with distributed aim, i.e. against a number of objectives simultaneously.

(Under the new conditions of warfare, the *cumulative* effect of partial success, or even mere threat, at a number of points may be greater than the effect of complete success at one point.)

The effectiveness of armies depends on the development of such new methods—methods which aim at permeating and dominating areas rather than capturing lines; at the practicable object of paralysing [sic] the enemy's action rather than the theoretical object of crushing his forces. Fluidity of force may succeed where concentration of force merely entails a perilous rigidity (Liddell Hart, 1968, p. 346).

Thus Liddell Hart not only presented a new way of understanding the 'grand' nature of war, he also illustrates the real pattern of its reconsideration for implementation…

Let us assume that a strategist is empowered to seek a military decision. His responsibility is to seek it under the most advantageous circumstances in order to produce the most profitable result. Hence *his true aim is not so much to seek battle as to seek a strategic situation so advantageous that if it does not of itself produce the decision, its continuation by a battle is sure to achieve this*. In other words, dislocation is the aim of strategy; its sequel may be either the enemy's dissolution or his easier disruption in battle. Dissolution may involve some partial measure of fighting, but this has not the character of a battle (Liddell Hart, 1968, p. 339).

Furthermore, he speculates upon the elements, or aims, of the strategy – dislocation and dissolution…

How is the strategic dislocation produced? In the physical, or 'logistical', sphere it is the result of a move which (a) upsets the enemy's dispositions and, by compelling a sudden 'change of front', dislocates the distribution and organization of his forces; (b) separates his forces; (c) endangers his supplies; (d) menaces the route or routes by which he could retreat in case of need and reestablish himself in his base or homeland (Liddell hart, 1968, pp. 339-340).

…and presents the main ways (tactical means) to produce these effects on the battlefield…

Strategy has not to overcome resistance, except from nature. *Its purpose is to diminish the possibility of resistance*, and it seeks to fulfil [sic] this purpose by exploiting the elements of *movement* and *surprise*…

Surprise lies in the psychological sphere and depends on a calculation, far more difficult than in the physical sphere, of the manifold conditions, varying in each case, which are likely to affect the will of the opponent.

Although strategy may aim more at exploiting movement than at exploiting surprise, or conversely, the two elements react on each other. Movement generates surprise, and surprise gives impetus to movement. For a movement which is accelerated or changes its direction inevitably carries with it a degree of surprise, even though it be unconcealed; while surprise smoothes the path of movement by hindering the enemy's counter-measures and counter-movements (Liddell Hart, 1968, p. 337).

The only issue that Liddell Hart favored from the Clausewitzian perspective on war was the appreciation of the deep ***human nature*** of war…

Clausewitz's greatest contribution to the theory of war was in emphasizing the psychological factors. Raising his voice against the geometrical school of strategy, then fashionable, he showed that the human spirit was infinitely more important than operational lines and angles. He discussed the effect of danger and fatigue, the value of boldness and determination, with deep understanding (Liddell hart, 1968, p. 353).

…which he personally deeply emphasized placed on a level of extreme importance, and gave some recommendations to master it...

Although war is contrary to reason, since it is a means of deciding issues by force when discussion fails to produce an agreed solution, the conduct of war must be controlled by reason if its object is to be fulfilled. For—

(1) While fighting is a physical act, its direction is a mental process. The better your strategy, the easier you will gain the upper hand, and the less it will cost you.

(2) Conversely, the more strength you waste the more you increase the risk of the scales of war turning against you; and even if you succeed in winning the victory, the less strength you will have to profit by the peace.

(3) The more brutal your methods the more bitter you will make your opponents, with the natural result of hardening the resistance you are trying to overcome; thus, the more evenly the two sides are matched the wiser it will be to avoid extremes of violence which tend to consolidate the enemy's troops and people behind their leaders.

(4) These calculations extend further. The more intent you appear to impose a peace entirely of your own choosing, by conquest, the stiffer the obstacle you will raise in your path.

(5) Furthermore, if and when you reach your military goal, the more you ask of the defeated side the more trouble you will have, and the more cause you will provide for an ultimate attempt to reverse the settlement achieved by the war.

…The statesman who gives that instinct its head loses his own; he is not fit to take charge of the fate of a nation (Liddell Hart, 1968, p. 379).

Dismissing the very notion of fixed rules, or principles of war, Liddell Hart proposes them not as a simple set of rules for the guidance of action, but for the guidance of 'intellectual exercising.' Instead of an outdated 'one-sided' approach to the principles of war, he presents a set of factors that influence the overall outcomes of war in his own general, new perspective.

Positive

1. Adjust your end to your means. In determining your object, clear sight and cool calculation should prevail...

2. Keep your object always in mind, while adapting your plan to circumstances. Realize that there are more ways than one of gaining an object, but take heed that every objective should bear on the object...

3. Choose the line (or course) of least expectation…

4. Exploit the line of least resistance—so long as it can lead you to any objective which would contribute to your underlying object…

5. Take a line of operation which offers alternative objectives. For you will thus put your opponent on the horns of a dilemma, which goes far to assure the chance of gaining one objective at least— whichever he guards least—and may enable you to gain one after the other.

Alternative objectives allow you to keep the opportunity of gaining an objective; whereas a single objective, unless the enemy is helplessly inferior, means the certainty that you will not gain it —once the enemy is no longer uncertain as to your aim…

6. Ensure that both plan and dispositions are flexible—adaptable to circumstances... Your plan should foresee and provide for a next step in case of success or failure, or partial success—which is the most common

case in war. Your dispositions (or formation) should be such as to allow this exploitation or adaptation in the shortest possible time…

Negative

7. Do not throw your weight into a stroke whilst your opponent is on guard…

8. Do not renew an attack along the same line (or in the same form) after it has once failed…

The essential truth underlying these maxims is that, for success, two major problems must be solved—dislocation and exploitation… You cannot hit the enemy with effect unless you have first created the opportunity; you cannot make that effect decisive unless you exploit the second opportunity that comes before he can recover.

...The training of armies is primarily devoted to developing efficiency in the detailed execution of the attack... It fosters a cult of soundness, rather than of surprise. It breeds commanders who are so intent not to do anything wrong, according to 'the book,' that they forget the necessity of making the enemy do something wrong…

…For luck can never be divorced from war, since war is part of life. Hence the unexpected cannot guarantee success. But it guarantees the best chance of success (Liddell Hart, 1968, pp. 348-50).

Having the utmost aim of war for the 'better peace,' Liddell Hart was very concerned about the war outcomes and their ultimate importance in the war-fighting itself. Therefore, his considerations of victory, as a general term of possible war termination, give definition of the victory some new meaning…

Victory in the true sense implies that the state of peace, and of one's people, is better after the war than before. Victory in this sense is only possible if a quick result can be gained or if a long effort can be economically proportioned to the national resources. The end must be adjusted to the means. Failing a fair prospect of such a victory, wise statesmanship will miss no opportunity for negotiating peace. Peace through stalemate, based on a coincident recognition by each side of the opponent's strength, is at least preferable to peace through common exhaustion—and has often provided a better foundation for lasting peace.

It is wiser to run risks of war for the sake of preserving peace than to run risks of exhaustion in war for the sake of finishing with victory—a conclusion that runs counter to custom but is supported by experience. Perseverance in war is only justifiable if there is a good chance of a good end—the prospect of a peace that will balance the sum of human misery incurred in the struggle (Liddell Hart, 1968, p. 379).

In general, the philosophical character of the Liddell Hart's work is very close to ancient Chinese military thought. There are similarities in the concepts of war, which start with the definition of excellence in war-waging. Liddell Hart's idea that "the perfection of strategy would be … to produce a decision without any serious fighting" (Liddell Hart, 1968, p. 338) is a reflection of Sun Tzu's belief that "subjugating the enemy's army without fighting is the true pinnacle of excellence" (*Sun Tzu*, Sawyer (Ed), 1998, p. 161). Another example in his work is the interesting notion of the ancient 'golden bridge'-rule of war, about which the Chinese said...

Do not obstruct an army retreating homeward. If you besiege an army you must leave an outlet. Do not press an exhausted invader… (*Sun-Tzu*, Sawyer (Ed), 1998, p. 171),

The Romans expressed a similar idea...

Generals unskilled in war think a victory incomplete unless the enemy are so straightened in their ground or so entirely surrounded by numbers as to have no possibility of escape. But in such situation, where no hopes remain, fear itself will arm an enemy and despair inspires courage. When men find they must inevitably perish, they willingly resolve to die with their comrades and with their arms in their hands. The maxim of Scipio, that a golden bridge should be made for a flying enemy, has much been commended (Vegetius, *Roots of Strategy*, 1955, p. 164).

However, it was opposed by later military thinkers, such as de Saxe...

The words of the proverb: "A bridge of gold should be made for the enemy," is followed religiously. This is false. On the contrary, the pursuit should be pushed to the limit. And the retreat which had appeared such a satisfactory solution will be turned into a route… Can anyone boast to me, after that, of the good order of retreats and the prudence of those who build a "bridge of gold" for the enemy after they have been defeated in

battle. I should say that they serve their master badly… Once the enemy has taken flight they can be chased with bladders (de Saxe, *Roots of Strategy*, 1955, pp. 299-300),

Liddell Hart agreed with the Chinese and early Romans when he said...

> …it is an elementary principle of strategy that, if you find your opponent in a strong position costly to force, you should leave him a line of retreat—as the quickest way of loosening his resistance. It should, equally, be a principle of policy, especially in war, to provide your opponent with a ladder by which he can climb down (Liddell Hart, 1968, p. 371).

Liddell Hart also applied other ancient wisdom to his work, such as…

> As for the military formations: <u>When advancing</u>, the most important thing for the <u>ranks is to be dispersed</u>; <u>when engaged in battle it is to be dense</u> and for the weapons to be of mixed types (*Ssu-ma Fa*, Sawyer (Ed), 1998, p. 135, emphasis added).

> <u>Do not repeat your previous tactics</u>. Whether you win or not, do not deviate from this method, for it is termed the "True Principle" (*Ssu-ma Fa*, Sawyer (Ed), 1998, p. 141, emphasis added).

> The "mountain-sea" spirit means that <u>it is bad to repeat the same thing several times when fighting the enemy</u>… If you once make and attack and fail, there is little chance of success if you use the same approach again. <u>If you attempt a technique which you previously tried unsuccessfully and fail yet again, then you must change your attacking method</u> (Miyamoto Musashi, *A Book of Five Rings*, Victor Harris (trans.), New York: The Overlook Press, 1982, p. 80, emphasis added).

Many of these similarities are also embodied by the authors whose writings are the subject of the following sections of the chapter. This illustrates the significantly increasing pattern of reconsidering the war through the 'knowledge', a pattern that has become a main feature of the military thinking in the Information age.

D.   KNOWLEDGE VERSUS IGNORANCE

> Either the principles of war *had* changed and the leaders simply failed to notice, or the principles remained immutable but adherence to them did not lead to advantage in combat. If the latter is true, then the principles of

war are merely academic and not worthy of study by the military professional (Leonhard, 1998, p. 5).

In his book *The Principles of War for the Information Age,* Robert R. Leonhard adapts the classical principles of war to the relatively new, but rapidly emerging information dimension of contemporary warfare. John Arquilla and David Ronfeldt have predicted the appearance of a new way of war in the Information Age in the following way…

> Suppose that war looked like this: Small numbers of your light, highly mobile forces defeat and compel the surrender of large masses of heavily armed, dug-in enemy forces, with little loss of life on either side. Your forces can do this because they are well prepared, make room for maneuver, concentrate their firepower rapidly in unexpected places, and have superior command, control, and information systems that are decentralized to allow tactical initiatives, yet provide the central commanders with unparalleled intelligence and "topsight" for strategic purposes.

> For your forces, warfare is no longer primarily a function of who puts the most capital, labor and technology on the battlefield, but of who has the best information about the battlefield. What distinguishes the victors is their grasp of information—not only from the mundane standpoint of knowing how to find the enemy while keeping it in the dark, but also in doctrinal and organizational terms (Arquilla & Ronfeldt, "Cyberwar is coming!" *In Athena's Camp: Preparing for Conflict in the Information Age*, RAND, 1997, p. 23, emphasis added).

These ideas illustrate the need to reconsider the classical doctrinal concepts of contemporary warfare in regards to the potential information dependency of forces in the future wars. Similarly, Leonhard's 'information warfare' does not espouse the widely accepted approach of countering an enemy's informational domain and keeping one's own unaffected while waging war in almost classical way, Instead he proposes the effective management of information, which allows leaders to maneuver military capabilities in the most effective way – both prior and during the engagement – in order to use in full the 'information superiority' for the sake of its competent exploitation for achieving the 'victory.'

The Information Age offers new potential. Through the fusing of computer technology, global positioning system (GPS), advanced sensors, digital mapping, and sophisticated communications networks, weapon systems can achieve the Information Age phenomenon of precision strike, eliminating—theoretically at least—the problem of CEP. "One round-one kill" (or even "one round-multiple kills") can become a reality in the modern age (Leonhard, 1998, p. 26).

But the main advantage of possessing the information superiority is the significant reduction of uncertainty on the battlefield. This is accomplished with improved general estimates about the environment, enemy's capabilities, one's own forces, and their overall interaction. Therefore, from Leonhard's perspective, the balance in the information system between two extremes of information awareness – **knowledge** versus **ignorance**, serves to rule the action on the battlefield and force the principles of war to evolve from the classical ones of the Industrial Age to the new ones of the Information Age.

Through the comprehensive study of each of nine classical principles of war Leonhard works out three **laws** of war. The main one is the *Law of Humanity*, which explains "warfare [as] an outgrowth of the human soul; [where] all human conflicts are founded upon the nature (physical, psychological, and spiritual) of mankind" (Leonhard, 1998, p. 207). The two subordinate laws are the *Law of Economy*, because "ignorance breeds waste… [and] information leads to precise expenditure of resources" (Leonhard, 1998, p. 218) and the *Law of Duality*, where human conflict has both subjective ("is most simply understood as a contest of strength against strength") (Leonhard, 1998, p. 228) and objective ("pits strength against weakness and vulnerability, or… applies energy to something other than competition with a counterpart") (Leonhard, 1998, p. 229) sides. Leonhard also details "three categories of dependant **principles**: principles of aggression, principles of interaction, and principles of control" (Leonhard, 1998, p. 255). These principles are not something new; they are rather thoughtfully reconsidered old ones. For the most part, they present a thesis-antithesis balance according to the amount of relevant information available for decision-making, which influences the character of actions…

Throughout the history of conflict, armies have used various means— technology, organization, and, very often, maneuver—to dislocate the enemy's strength. Once the enemy's strength is set aside, the friendly force

is free to attack through the enemy's weakness to bring about defeat. Dislocation is the theoretical foundation for obtaining the advantage in combat (Leonhard, 1998, p. 64).

Thus Leonhard changes the interpretation of the principle of *Maneuver*. He gives to its meaning of ***placing the enemy in a position of disadvantage*** the variety of options in the full spectrum of objective economical *dislocation*: *positional* ("renders enemy strength irrelevant by causing the enemy to be in the wrong place, in the wrong formation, or facing in the wrong direction"), *functional* ("sets aside enemy strength by causing it to be dysfunctional, generally through the application of technology or combined arms tactics"), *temporal* ("is the art of rendering enemy strength irrelevant through the manipulation of time, and it is the basis for surprise in war"), and *moral* ("is the offsetting of enemy strength through the defeat of the opponents' will") (Leonhard, 1998, pp. 64-65); and subjective non-economical *confrontation* ("to immobilize, delay and attrit the enemy's strength") (Leonhard, 1998, p. 256). But the main Leonhard's point is in the "skillful combination" of them, hence "the effective war-fighting rests upon" it (Leonhard, 1998, p. 255).

> This principle is dependent upon knowledge and ignorance for application. The greater our knowledge, the more likely we can dislocate enemy strength. The greater our ignorance, the more likely we will be forced to confront enemy strength. Therefore, every gain of information should lead to greater emphasis upon dislocation (Leonhard, 1998, p. 256).

Considering the principle of *Mass*, Leonhard points out that "the most compelling idea behind the principle of mass is that mass equals killing power… But the principle of mass began to lose relevance as military technology progressed… *Mass no longer equals killing power*" (Leonhard, 1998, pp. 98-99, p. 102).

> Tomorrow's fighting forces will include small, lethal units moving with great velocity and precision to attack through weakness toward critical vulnerabilities. The linear tactics that the classic writers of the past wrote about are less relevant today, but the flanks and weaknesses they warned about still abound. Overmatching velocity—not overlapping mass—is the key to finding them (Leonhard, 1998, p. 109).

Thus Leonhard dismisses the principle of *Mass* as a valid principle of war for the Information Age, leaving only one conceptual part of it still applicable for further implementation. That concept is *concentration*, which, in 1954, Liddell Hart made one of the most important features of his theory.

> The principles of war, not merely one principle, can be condensed into a single word—'concentration.' But for truth this needs to be amplified as the 'concentration of strength against weakness'… True concentration is the fruit of calculated dispersion.

> Here we have a fundamental principle whose understanding may prevent a fundamental error (and the most common)—that of giving your opponent freedom and time to concentrate to meet your concentration (Liddell Hart, *Strategy*, 1968, p. 347).

Therefore, Leonhard places the balance of distribution and concentration under the dependence on the balance of knowledge and ignorance. In order to add to this idea, the economical nature of their interaction must be considered.

> Spatial distribution is the active dispersion of combat power according to purpose throughout the battlefield, theater of operation, or theater of war. Distribution apportions combat power to accomplish specific purposes in the most economical and precise way possible. Where there is no purpose, there are likewise no forces. Where there is a purpose to accomplish, there is just enough force to accomplish it, without wasteful excess against uncertainty (Leonhard, 1998, p. 256).

A more specific term for such military action was provided by John Arquilla and David Ronfeldt as the 'swarming' , which is "the systematic pulsing of force and/or fire by dispersed, internetted units, so as to strike the adversary from all directions simultaneously" (Arquilla & Ronfeldt, *Swarming and the Future of the Conflict*, RAND, 2000, p. 8). This concept, although more specific, can be interpreted as a logical extension of the ideas of Liddell Hart and Leonhard. It has more comprehensive requirements (compared to the simple balance of knowledge and ignorance) for its successful and complete implementation:

> Swarming has two fundamental requirements. First, to be able to strike at an adversary from multiple directions, there must be large numbers of small units of maneuver that are tightly internetted—i.e., that can

communicate and coordinate with each other at will, and are expected to do so. The second requirement is that the "swarm force" must not only engage in strike operations, but also form part of a "sensory organization," providing the surveillance and synoptic-level observations necessary to the creation and maintenance of "topsight." Thus, swarming relies upon what Libicki (1994) calls "the many and the small," as well as upon Gelernter's (1991) notion of a command element that "knows" a great deal but intervenes only sparingly, when necessary. These two fundamental requirements may necessitate creating new systems for command, control, communications, computers, and intelligence (C4I) (Arquilla & Ronfeldt, 2000, p. 22).

Coming back to Leonhard's point about the principle of *distribution* and *concentration* of the forces on the battlefield, their balance depends on the balance of knowledge and ignorance, for "the greater our knowledge, the more effective we can distribute combat power. The greater our ignorance, the more we need to concentrate in order to compensate for uncertainty" (Leonhard, 1998, p. 257).

Leonhard considers the principles of *dislocation* and *confrontation*, and *distribution* and *concentration* as the ***principles of aggression***, which "deal with what we intend to do to the enemy to accomplish our goals. These … principles are concerned wholly with the means of defeating the enemy" (Leonhard, 1998, p. 255). The classical principle of *Surprise*, because of its nature as a form of dislocation (Leonhard, 1998, p. 193), becomes an integral component, or necessary condition, for the *principles of aggression*.

> If we want to be true to this principle of war, we must become familiar and comfortable with the factors that create surprise… We can *delay detection*, or we can *hasten contact*. By delaying detection, we prevent the enemy from preparing/adapting by leaving him temporarily ignorant of the threat… The other side of tactical surprise is *hastening contact*. This simply works the other end of the equation, by rushing the enemy *after* he has detected us. The faster we can force an engagement upon him, the less time he has to come to full battle readiness (Leonhard, 1998, pp. 188-189).

In regard of the principle of *Offensive,* Leonhard points out that it "has never been a valid principle of war [because, coming from the content of it of obtaining the initiative,] initiating operations and attacking are not the same thing" (Leonhard, 1998, p. 83, p. 84). In terms of the Information Age, initiative is irrelevant. "What we really want

in warfare is freedom to act, or, to put it another way – *opportunity*" (Leonhard, 1998, p. 91).At the same time, the other side of the opportunity, *reaction,* "aims at the destruction of enemy opportunity" (Leonhard, 1998, p. 258).

> Knowledge-based armies should spend most of their time exploiting opportunity. When an army has great ignorance, reactive warfare is the norm. Ignorance-based armies will spend most of their time reacting and trying to create opportunity, sometimes through the use of risky offensive actions (Leonhard, 1998, p. 259).

The principle of *Security*, from Leonhard's point of view, "remains a valid principle of war in the Information Age" (Leonhard, 1998, p. 163), but it needs to be redefined…

> The problem with this principle is that its application is rooted in the cognitive darkness of *uncertainty*… When we can see the enemy with precision, clarity, and certainty, we economize our security. As we have noted previously, the law of economy demands that we minimize our expenditures of time, lives, and supplies in the business of security. The goal must ever be to secure the command as cheaply as possible. Resources wasted in security cannot be used for other activities. Ultimate security is equal to total inactivity (Leonhard, 1998, p. 163).

From Leonhard's perspective, throughout history most security efforts were exclusively directed not against actual enemy's actions, but more frequently against enemy's *potential capabilities* (Leonhard, 1998, p. 166). This led to military means that were extensively overloaded by security measures oriented against what unknown but was expected, thus losing their actual combat efficiency. Luttwak uses similar logic in his notion of 'virtual attrition', which occurs when the combat (attacking) capabilities of the offensive means are sacrificed for the sake of its self-protection (Edward N. Luttwak, *Strategy: The Logic of War and Peace*. Cambridge, MA: The Belknap Press of Harvard University Press, 2001, p. 203).

> We will never obtain total protection, and we do not seek it. The principles of war teach us that total security is unfeasible and prohibitively expensive. What we want is *sufficient* protection—sufficient to allow our forces to accomplish the mission and defeat the enemy (Leonhard, 1998, p. 169).

The whole point is to have just enough capabilities 'to protect friendly force from enemy action,' and, coming from the Law of Economy, allocate the rest to enable own active actions.

> The commander should seek to reserve as many resources as possible for activity, because it is through activity (moving, fighting, controlling, etc.) that he will prevail in conflict.

> Knowledge and ignorance condition the application of the principle of activity and security. The greater our knowledge, the more economically we can secure ourselves. The greater our ignorance, the more we must secure against the unknown (Leonhard, 1998, p. 258).

Thus, for Leonhard, the balance of *security* and *activity*, paired with the previously mentioned balance of *opportunity* and *reaction*, are the **principles of interaction** for war in the Information Age. They "address the interplay between friendly and enemy force. These … principles acknowledge that the enemy is determined and capable, and that our war-fighting must account for his aggressive actions" (Leonhard, 1998, p. 258).

One more classical principle of war was dismissed by Leonhard as not valid in the Information Age is that of *Simplicity*. He dismissed it because modern warfare "demands not the simplicity, but rather simplification." In addition, it completely contradicts the principle of *Surprise* (Leonhard, 1998, p. 170, p. 171).

> The point is that real warfare is not simple. Quite the reverse: It is almost inconceivably complex. The art and science of war demand a continuous process of analysis and simplification. We do not want simple plans; we want complex, effective plans that are simplified for execution (Leonhard, 1998, p. 176).

The information flow on the modern battlefield becomes the subject for both the technological and human capabilities that need to manage it properly. The balance of complexity and simplicity in contemporary warfare plays out as the necessity of the simplifying the relative data "in order to move it at the required speed" (Leonhard, 1998, p. 177). Thus Leonhard proposes an arguable point about the organizational design

needed for the modern military in order to increase the efficiency of information management, and thereby increase combat effectiveness...

> If we had unlimited capacity to process and disseminate data, there is no doubt that Information Age warfare would feature a radical centralization of command and control… Centralization is the right way to go in modern warfare, provided that we can process and move data fast enough. But the real limitations in communications and data processing will obstruct centralization to some degree. As a result, there will be a viable need for a degree of decentralization in future war-fighting. But to make it effective we must dismiss the religious fanaticism of current writings on maneuver warfare and come to grips with the realities of modern information technology (Leonhard, 1998, p. 180).

> The classical principle of *Objective* has the most rich interpretation and history…

> Objective is best understood as an expression—an outgrowth— of the principle of economy of force… We economize our efforts by fixing our attentions on the objective…

> First of all, objective began life as the Siamese twin of mass. Mass warfare was all about concentrating forces toward a single point… Objective was born as a tactical idea, closely linked to mass (Leonhard, 1998, p. 139, p. 142).

From Leonhard's perspective, the principle of *Objective* historically appeared as an embodiment of the need of the past military for relative autonomy on the battlefield. This could be achieved by possessing clear aims of the war (battle, campaign, etc.) at the hand of the military commander; that is the task "before the start of an operation" (Leonhard, 1998, pp. 147-48). But "twenty-first-century American strategists will plan for the use of military forces, diplomatic leverage, economic influence, informational resources, and intelligence operations to achieve national goals" (Leonhard, 1998, p. 156), therefore the principle of Objective merges into *option acceleration*…

> We use the term *acceleration*, because twenty-first-century strategy will require not just the *creation* of strategic options, but the *rapid* creation of them—at a pace faster than the enemy can match. Warfare is and will remain a time-competitive event, and future warfighters will be judged by how rapidly they can put viable strategic options in the hands of the National Command Authority (Leonhard, 1998, p. 157).

The main idea of balance between these two extremes – *objective* and *option acceleration* – is that…

> Option acceleration seeks to delay the decision concerning the desired end state of a conflict, and then capitalizes on flexibility to achieve a precise and high-payoff end state…

> Objective seeks to make an early decision concerning the desired end state of a conflict, and then capitalizes on that decision through a rapid and focused campaign (Leonhard, 1998, p. 259).

The balance of knowledge and ignorance influences the application of these two concepts on the ground…

> The greater knowledge the superior authority has (whether governmental at the strategic level of war, or military at the tactical/operational level of war), the greater the potential for option acceleration. Conversely, the more ignorant the superior authority is, the more it must rely upon objective (Leonhard, 1998, p. 260).

Leonhard presents the most complicated interpretation for a principle of war in terms of the Information Age in the principle of *Unity of Command*. From a general perspective *unity of command* "has always been nothing more than a technique for getting at what we really want: effective integration of battlefield activities" (Leonhard, 1998, p. 194), which is a highly effective method but not the principle, for "what we really want is *effective integration*" (Leonhard, 1998, p. 197).

> As we progress toward building and deploying the armed forces of the twenty-first century, we must set aside the myths that have attended command doctrine in the past. The rule of thumb is simple: *Information flow determines decision-making authority*. If we stay flexible and adapt our command doctrine to that equation, we will free ourselves to exploit the other revolutionary aspects of Information Age warfare. We will find, in the end, that we need to balance the competing notions of *command* and *anarchy* (Leonhard, 1998, p. 204).

Thus, Leonhard attempted to determine the boundaries for balance in the chain of authority in the military decision-making process through the perspective of the new conditions of the Information Age.

Command seeks unity of effort through authoritative direction… The command side of this principle leads to rapid, economical decision making, but it suffers from imposing uneconomical constraint upon the activities of subordinates.

Anarchy seeks success through skillful integration of effects… Anarchy leads to economical optimization of subordinate activities, but it suffers from uneconomical decision making (Leonhard, 1998, p. 260).

Therefore, the effectiveness and efficiency of battle management depend upon the competent application of the concepts of centralization and decentralization on the command and control system according to the balance between knowledge and ignorance.

The greater the knowledge of the higher headquarters, the more it can and should effectively employ command. The greater the ignorance of the higher headquarters, the more it can effectively use anarchy. A disruption of control occurs when an army fails to balance the principle of knowledge and ignorance with the principle of command and anarchy (Leonhard, 1998, p. 260).

The balance of *command* and *anarchy*, together with the balance of *option acceleration* and *objective* comprise the **principles of control**, which "address how we manage the friendly force. Those … principles acknowledge that the methods we use to control our forces impacts on their chances of success in conflict with the enemy" (Leonhard, 1998, p. 259).

Through his comprehensive study of the classical principles of war in terms of their reconsideration for application in the Information Age, Leonhard presented new type of knowledge-based 'precision warfare.' These new principles, when "properly used as arguments rather than aphorism, provide a dynamic framework for the development of creative solutions in conflict" (Leonhard, 1998, p. 261). Presumably, the only argument should be risen is that this perspective deals with the tactical level of war. Although the principles here are still called the principles of war, and not of battle, their reconsideration only slightly touched the operational level and completely missed strategical and political levels. Leonhard simply changed the names of the classical

principles and altered their configuration and method of application. He addressed the possibility of virtual tuning between their extreme forms according to the extent of information awareness, but kept their conceptual meanings relatively the same. The new environment creates new challenges with which the military must deal. Thus, the "linear-logic" (as Luttwak addresses it) approach to the solution of how to meet them effectively, perhaps, is not enough.

E.   PARADOXICAL LOGIC OF STRATEGY

> War is not only a duel of forces, nor is it only a duel of wills; it is most of all a duel of wits (Zeev Maoz, *Paradoxes of War*, Boston: Unwin Hyman, 1990, p. 142).

If we presume the overall applicability of the classical principles of war to all the levels of war, we should try to apply them on some level to all dimensions of warfare. From the analysis of contemporary military thought, it becomes obvious that the classical principles of war are most important on the tactical level. As illustrated in previous chapters, their applicability is pretty doubtful on levels of higher than that. Moreover, they become paradoxical in their nature and start contradicting and nullifying the feasibility of each other.

Luttwak's *Strategy* provides a substantial study of the 'paradoxical logic of strategy.' In this book he explored all the levels of warfare: technical, tactical, strategical, and grand strategical. Moreover, he studied the interactions of these levels in a vertical dimension and their separate effectiveness within the horizontal one (Luttwak, 2001, p. 90). This allows the researcher to place any notion, concept, or weapon system in the provided framework to test its suitability, acceptability, feasibility, and real value for each of the levels and dimensions, as well as overall. The main purpose of Luttwak's work was...

> to uncover the universal logic that conditions all forms of war as well as the adversarial dealings of nations even in peace. Whatever humans can do, however absurd or self-destructive, magnificent or sordid, has been done in both war and statecraft, and no logic at all can be detected in the deeds themselves. But the logic of strategy is manifest in the outcome of

what is done or not done, and it is by examining those often unintended consequences that the nature and workings of the logic can best be understood (Luttwak, 2001, p. xi).

The main leitmotif in Luttwak's research is that military strategy is paradoxical in nature. It is so, first and foremost, because of the human factor deeply involved in all the levels of war. The human factor in war, most importantly, is determined by the constant mutual interaction between the confronting sides in the conflict. Reciprocity in war thus becomes the decisive element for any measurement or estimate of the effectiveness of any counterpart in the competition. In some cases this notion is simply ignored because of the particular character of warfare, but it cannot be completely dismissed…

> Although each separate element in its conduct can be quite simple for a well-trained force, a matter of moving from one place to another, of using weapons in ways drilled a hundred times before, of issuing and understanding clear-cut orders, the *totality* of those simple things can become enormously complicated when there is a live enemy opposite, who is reacting to undo everything being attempted, with his own mind and his own strength (Luttwak, 2001, p. 3).

Besides the almost completely missed consideration of the human factor in contemporary warfare, there was one more paradoxical phenomenon in the military – *movement* and *surprise* were accepted as the main decisive elements in War. Liddell Hart describes this the following way…

> Although strategy may aim more at exploiting movement than at exploiting surprise, or conversely, the two elements react on each other. Movement generates surprise, and surprise gives impetus to movement. For a movement which is accelerated or changes its direction inevitably carries with it a degree of surprise, even though it be unconcealed; while surprise smoothes the path of movement by hindering the enemy's counter-measures and counter-movements (Liddell Hart, 1968, p. 337).

But the emphasis upon the overwhelming significance of surprise, and of its derivative and satellite – movement, as decisive factors of successful warfare in terms of overall outcomes of war was also misinterpreted and thus overestimated. Let us take a look at the surprise first.

Surprise, from a general perspective (even on the tactical level), already has a paradoxical nature, because "each paradoxical choice made for the sake of surprise must be paid for, it must cause some loss of strength" (Luttwak, 2001, p. 5). At the same time, "the loss of some strength is certain but success in actually achieving surprise can only be hoped for." Moreover, "failures to achieve surprise are damaging and possibly catastrophic not only because of the strength deliberately sacrificed that is absent from the fight… but also because of the psychological impact of the collision between optimistic expectations and harsh reality" (Luttwak, 2001, p. 7). Thus surprise creates more uncertainty than it overcomes. Furthermore, its shortcomings can be reinforced by the "organizational risk of failure… caused not by the enemy's reaction but rather by ordinary errors, misunderstanding, delays, and mechanical breakdowns in the deployment, supply, planning, command, and operation of military forces" (Luttwak, 2001, p. pp. 8-9).

> When the attempt is made to reduce anticipated combat risks by any form of paradoxical action, including maneuver, secrecy, and deception, the overall action will tend to become more complicated and more extended, thereby increasing organizational risks (Luttwak, 2001, p. 9).

The paradoxical nature of surprise is more substantially explored by Zeev Maoz in his book *Paradoxes of War*. It shows that once surprise goes from the tactical level to the strategical or political one, it actually fails to accomplish its initial purpose. From Maoz's perspective the paradox of surprise is this:

> A state mounts a successful surprise attack, handing the opponent an initial military defeat. Yet, it may turn out that precisely because of the successful accomplishment of surprise, the war ends in a—sometimes disastrous—defeat for the attacker (Maoz, 1990, p. 169).

Surprise allows for taking the counterpart unprepared. Moreover, the surprising action means the aggressor possesses the initiative. From a general point of view everything seems beneficial for the aggressor, but the historical evidence provides another perspective.…

> One factor that explains not only why most surprise attacks have ended in disaster, but also why most modern strategists have failed to realize a

genuine paradox in this context is that most surprise attacks have been staged by states that were militarily inferior to their opponents. The superior opponent was able to absorb the devastating first strike, regroup its forces, and launch an effective counteroffensive. Given its numerical, technological, and tactical superiority, the victim overcame its initial problems and emerged victorious (Maoz, 1990, p. 171).

The other two reasons are that initial surprise if often too successful and it surprises the aggressor even more than the victim, while at the same time it gives substantial motivation to the victim and determines the will to retaliate…

> There are two facets to the paradox of surprise; one is that it works better than expected and hence catches the initiator unprepared. The ease with which the initiator accomplishes its objectives finds it unprepared to deal with the second stage of the battle. The other facet is that the success of the surprise attack increases the target's resolve and willingness to suffer, which cause the initiator's failure (Maoz, 1990, p. 174).

Even if surprise works during the initial stage of war and brings victory for the aggressor over the victim state, from a political perspective the overall situation can change. While surprise means success on the tactical level, the complexities of the higher levels of war are governed by other rules…

> Because ultimate ends and means are both present only at the level of grand strategy, the outcome of military actions is determined only at that highest level: even a most successful conquest is only a provisional result that can be overturned by the diplomatic intervention of more powerful states; even a major military defeat can be redeemed by the intervention of new allies that weakness can attract under the usual workings of the balance of power (Luttwak, 2001, p. 89).

Since we determined war primarily as a 'competition' of the human beings, the first level of war that is highly influenced by the 'human realities of combat' is the tactical level (Luttwak, 2001, p. 103). "At the tactical level of strategy, therefore, the intangibles of skill, leadership, morale, discipline, and unit cohesion enter into our picture, usually to dominate the outcome" (Luttwak, 2001, p. 105). Therefore, the tactical level attracts the most attention from military thinkers who want to systemize and conceptualize a winning framework for the tactical level of war waging. However, highly evolving environmental conditions (mostly in terms of time, place, and 'tools') force

concepts to constantly vary. Predominantly it happens because of the significant need to protract the validity of the sound successful tactical theories further – into the extremely doubtful areas, where numbers and technical features are of a little importance, and where the engaged forces' "interplay of action and reaction is then no longer confined to the tactical level" (Luttwak, 2001, p. 110).

> The weapons themselves interact at the technical level of strategy; the forces directly opposed fight one another at the tactical level; but at the operational level we encounter for the first time the struggle between the directing minds on both sides (Luttwak, 2001, p. 112).

The excellence of the operational level thus depends on the balance of the *'linear-logic'* and *alternative* approaches to it. In the former case the operational level consists of the 'sum of the tactical parts,' and in the latter case it becomes the real operational art. Luttwak characterizes the 'Linear logic' approach as *attrition*…

> *Attrition* is war waged by industrial methods. The enemy is treated as nothing more than an array of targets, and the aim is to win by their cumulative destruction achieved with superior firepower and material strength in general. Eventually the full inventory of enemy targets could in theory be destroyed, unless retreat or surrender terminates the process, as almost always happens in practice.

> The greater the attrition content of an overall style of war, the more will routinized techniques of target acquisition, attack, and resupply be sufficient, along with repetitive tactics, and the smaller is the opportu-nity—or need—to apply any operational method of war. Process replaces the art of war and all its ingenuities. As long as materially superior and abundantly supplied firepower-producing forces are brought within range of static targets (trenchlines, cities) or of enemy forces that must remain immobile and concentrated to achieve *their* purposes (not guerrillas, therefore), victory is mathematically assured. It is understood that if the enemy also has his firepower, the resulting reciprocal attrition will have to be absorbed. There can be no victory in this style of war without an overall material superiority, and there can be no cheap victories achieved by clever moves with few casualties and few resources expended (Luttwak, 2001, p. 113-114).

Luttwak defines the alternative way of war as a *relational maneuver*…

> At the other end of the spectrum there is *relational maneuver*, in which the aim is not to destroy the enemy's physical substance as an end in itself, but rather to incapacitate by some form of systemic disruption— whether that "system" is the command structure of the enemy's forces, their logistic support, their own method of warfare… (Luttwak, 2001, p. 115).

The notion of the balance between *attrition* and *relational maneuver* is very close to the balance of direct, straightforward actions and the actions of *surprise*. The complicacies of implementation of *surprise* have been explored, and they are very close to those of the *relational maneuver*…

> Two consequences follow. First, relational maneuver offers the possibility of obtaining results disproportionately greater than the resources applied to the effort, and thus offers a chance of victory for the materially weaker side. Second, relational maneuver can fail completely, if the selective strength narrowly applied against presumed weakness cannot perform its own task, or if it encounters unexpected strength because of mis-information. In the language of the engineer, attrition fails "gracefully," just as it can succeed only cumulatively; if a given target is misidentified or missed, that target will have to be attacked again, but the larger action is not endangered. Relational maneuver, by contrast, can fail "catastrophically" just as it can succeed with little strength, because an error of assessment or of execution can wreck the entire operation. Attrition is warfare paid at full cost but of low risk, while relational maneuver can be of low cost but may entail a high risk of failure (Luttwak, 2001, p. 115).

There is no truly pure form for either *attrition* warfare or *relational maneuver*; but the proportion of the latter in the overall actions "defines the scope of operational-level methods" (Luttwak, 2001, p. 116).

> Nations and armed forces that see themselves as materially stronger than the enemy at hand—a perception that may or may not be accurate—will generally prefer to rely on the reliable methods of attrition: the frontal offensive, the systematic bombing campaign, the direct naval attack. Those who view themselves, rightly or wrongly, as materially weaker, or else fear the casualties of attrition even if successful, will instead seek to uncover enemy vulnerabilities that they can attack with the high-risk-high-payoff methods of relational maneuver (p. 117).

As Michael Handel points out, in the real world "operational and tactical considerations can and do influence strategic decisions" (Handel, *Masters of War*, 2005, p. 353). If, on an operational level, 'linear logic' attrition-mindedness is present in abundance, the level becomes 'tacticized.' The same pattern occurs on the strategical level. Handel named this phenomenon 'tacticization' of strategy…

> Throughout the history the principle cause of the tacticization of strategy has been the uncontrolled ambition of military field commander or the tactically and operationally oriented thinking of political leaders (Handel, 2005, p. 358).

This is, perhaps, the case when the successful tactical concepts reach and master the strategical level of war. That was, presumably, the way of the classical principles of war up to the top of the state doctrinal theory.

On the other hand, the careful consideration of the *relational maneuver* gave the Brits, and most successfully the Germans, the ability to overcome the stalemate of the WWI-type attrition warfare. They developed capabilities and doctrine, which made the *blitzkrieg* effects, that is – "the disruption of the entire supporting structure of the [enemy's] defense, the forced evacuation of forward airbases and nuclear storage sites, and above all the unbalancing of command decisions, to misdirect any counterattacks and impose a disorganizing retreat" (Luttwak, 2001, p. 132), achievable and highly effective, even against numerically superior enemy. The same phenomenon explains the successfulness of *guerrilla* warfare, which is "the combat of small units that ***do not seek to hold territory***" (Luttwak, 2001, p. 152) and revolutionary wars…

> The principle is the same: with or without main-force engagements, smaller self-contained units that can operate without supply lines behind them are sent to attack targets in the soft rear. In revolutionary war, by contrast, the dominating context is the internal struggle for the control of government. Guerrilla combat is one of its tools, designed to humiliate and weaken the government in power by attacking its soldiers, policemen, and civil administrators. But the major instrument of revolutionary war is ***subversion***—the undermining and displacement of the official administrative machinery by propaganda and terrorism…

Guerrilla fighters cannot normally have a technical-level advantage over regular armies, and they rarely have a tactical advantage. <u>But they certainly have an operational advantage</u> (Luttwak, 2001, p. 152, emphasis added);

Guerilla fighters can easily escape open-field confrontation (although it was the final stage of the Mao's *revolutionary war* – that is why, perhaps, he had his own principles of war very similar to the classical ones…) simply because they are not interested in it – they do just enough to gradually achieve a predominantly political victory over the overwhelming enemy. It has nothing to do with successful tactical concepts or a winning framework of the principles. Where on the other hand…

Brilliant victories at the technical, tactical, operational, or theater-strategic level, or for that matter diplomatic blunders, may have the opposite effect or even remain without consequence in the confluence of grand strategy (Luttwak, 2001, p. 211).

F.   CONCLUSION

The classical *tactical* principles of *battle* are the children of the epoch of industrial warfare. They have changed their names and their interpretations. They are trying to survive in a rapidly evolving contemporary environment. They are adopting new techniques and mechanisms. They are attempting to be applied to the new non-military duties. They still will be relatively successful in accomplishing this volume of tasks, so long as the main point of war remains the destruction of enemy's forces rather than negotiating a 'better peace.' The 'best solution' for all disputed interests would be "vast military superiority with the vast diplomatic superiority" where "there is no room for doubt about the outcomes, and not much room for strategy either" (Luttwak, 2001, p. 257). While they were useful to Great Captains of the past for the relatively narrow application on the battlefield, the classical principles were hardly useful in the long run in terms of war in general. Changing or simply widening the perspective of the principles was not enough to make them feasible for effective achievement or, more importantly, competent exploitation of war outcomes. And it seems that to solve the equation of evolution in warfare from '*mass* warfare,' to '*maneuver* warfare', to the '*precision*

107

warfare' proposed by Leonhard, there is a need to add and explore the notion of '*purpose* warfare,' and Liddell Hart's warfare of the '*better peace*,' while thoughtfully considering Luttwak's *paradoxical* nature of war itself…

> That would have been a great victory indeed for a general whose talents did not extend beyond the operational level and who obviously did not comprehend theater strategy at all. But that would still have been only a battle victory, or rather the result of several battle victories, not a campaign victory—for the campaign would not have ended (Luttwak, 2001, p. 243).

V.   CONCLUSION

War is so serious, complex, and uncertain an undertaking that its practitioners and interpreters are always on the alert for some "key" to victory, some philosopher's stone for military art (Colin S. Gray, "Defining and achieving decisive victory," Strategic Studies Institute, U.S. Army War College, April 2002, p. 23).

False flags can inspire real fervor. Doctrines of war can certainly breed real conflicts, as can myths, metaphors, and illusions… (Chris H. Gray, *Postmodern War: The New Politics of Conflict*, New York: The Guilford Press, 1997, p. 9).

They [the principles of war] are supposed to be unchanging despite the fantastic changes that have occurred and continue to occur in almost all the factors with which they deal. In the world of ideas such durability is usually characteristic either of divine revelation or of a level of generality too broad to be operationally interesting (Bernard Brodie, 1959, p. 23).

Throughout history, military writers in the West concerned themselves more with how to achieve victory than policy success. The former, after all, seems a natural prerequisite to the latter. It is not surprising, therefore, that the so-called principles of war really evolved as principles of battle, regardless of their label, or whether they were preferred to as "truths, axioms, guides, rules, laws, fundamentals, maxims, or lessons" (Antulio J. Echevarria II, 2005, p. 59).

There are but two powers in the world, the sword and the mind. In the long run the sword is always beaten by the mind (Napoleon Bonaparte).

To our own day, the conditions in which he [Napoleon] lived and fought are as remote as those of the seventeenth and eighteenth centuries. But even this view of Napoleon is justified only if we interpret the timeless verities in the most general sense: the desirability (usually) of the concentration of force, the advantage of the economy of effort, the importance of morale – largely common-sense observations, which the Napoleonic and post-Napoleonic Age turned into varying checklists, called 'principles of war.' In practice these principles often clash, and with changing circumstances tend to assume new, sometimes very surprising forms (Peter Paret, "Napoleon and the Revolution in War," *Makers of Modern Strategy*, 1986, p. 141).

A. THE DILEMMA OF THE CONCEPT OF "PRINCIPLES OF WAR"

The principles of war were highly regarded by their practical users – great warriors and great tacticians. Soldiers were looking for a winning framework. They were looking for it predominantly in the historical evidence of the great victories by 'great captains.' The keys to success in these battles of the past gradually transformed into the classical principles of war. These principles seemed to be eternal, at least from the perspective of the warrior on the battlefield, and they have been evaluated as a guiding path for military victory. But with the flow of time certain doubts about the principles' applicability have surfaced. These doubts appeared when they were applied under the different conditions or to a level of war higher than single 'decisive' battle or even a series of them. Other doubts emerged when there was a need to consider military victory on the battlefield in terms of war in general. There have been certain problems applying the 'change-proof' principles of war to protracted wars, and especially when the situation dictated a need for a decision about the end of war and its outcomes. To some extent the possible reason for this pattern was the great warriors' incapacity to go beyond their level of responsibility, in the same way that de Saxe stated that sometimes great colonels become 'bad generals.' It could also have occurred because, according to Brodie, the "soldiers usually are students of tactics, but rarely are they students of strategy and practically never of war." On the other hand, there could have been a simple lack of relative knowledge and experience to effectively reconsider the implementation of the 'successful framework' to the current conditions, especially if these conditions evolved in unpredictable or undesirable way. The development of the military thought took place predominantly in times of peace, whereas its practical applicability could only be tested on the battlefield. As R.R. Palmer pointed out about Napoleonic campaigns, "in France the professional soldiers in those years were too busy in action to write treatises on what they were doing" (R. R. Palmer, "Frederick the Great, Guibert, Bulow: From Dynastic to National War," Peter Paret (Ed), *Makers of Modern Strategy*, Princeton: Princeton University Press, 1986, p. 113). Practical experience, as the main teacher for the warriors on the battlefield, could help them to improve their combat abilities for the current war, which left the issues of adjusting the strategy and grand strategy to the higher military

and the state's authorities. Depending on the competency of military leadership, its relations with the state's authorities, and, more precisely, on its freedom of actions – the improvement of the grand strategic approaches to the current war is not an easy task to accomplish. While the strategic deficits in military policy have had relatively low influence upon the actual combat performance of the troops on the battlefield, they have been decisive with regard to war outcomes. Sometimes they even lead to some categorical assertions in terms of war in general, for "errors in tactics and operations can be corrected in a current war, while mistakes in strategy can be corrected only in the next" (Field Marshall Keitel's observation during the Nuremberg Trial upon the German strategic errors in WWII, quoted by Colin S. Gray, April 2005, p. 20). But nothing is absolute, and there are historical examples that contradict this point. For example, the allies suffered the seventeen years of defeat, and then got accustomed to the Napoleonic strategy and effectively developed the countermeasures to it (Gat, 2001, p. 122). Also, the North in the U.S. Civil War greatly changed its strategy during the war, and it won (Russell F. Weigley, *The American Way of War*, Bloomington: Indiana University Press, 1977, pp. 139-152).

Although every single case of war has had its own special features in terms of the geopolitical, social, and technological situation, the particular way of war frequently allowed soldiers to develop and adopt winning frameworks to fit their contemporary warfare conditions: "Every art has its rules and maxims. One must study them: theory facilitates the practice. The lifetime of one man is not long enough to enable him to acquire perfect knowledge and experience" (Frederic the Great). Thus the great 'war-practitioners' view war in a relatively simple way: "War should be made methodically, for it should have a definite object; and it should be conducted according to the principles and rules of art" (Napoleon). The only problem was that these principles of war actually appeared first as the principles of warfare, or battle; and they were assured success predominantly while fitting the current level of warfare's development: "Saxe gained his successes in battles of position; he did not live long enough to take advantage of the mobility which his cadence gave to armies. Frederick was to take advantage of the new mobility of masses like Napoleon did later..." (Phillips, 1959, p. 306). Thus, when new

technology or a new type of formation was effectively adopted to the old way of warfare, it often changed it completely. Then the applicability of the old principles of war became troublesome or quite irrelevant: "War acknowledges principles, and even rules, but these are not so much fetters, or bars, which compel its movement aright, as guides which warns us when it is going wrong" (Rear Admiral Alfred T. Mahan). Thus the search for an 'old-new' winning framework goes another round, sometimes facing deteriorative appreciation of them by the military:

> I would give you a word of warning on the so-called principles of war… For heaven's sake, don't treat those as holy writ, like the Ten Commandments, to be learned by heart, and as having by their repetition some magic… They are merely a set of common-sense maxims… Clausewitz has a different set, so has Foch, so have other military writers. They are all simply common sense, and are instinctive to the properly trained soldier" (Field Marshal Sir A.P. Wavell).

Sometimes they received a more negative than positive evaluation: "If men make war in slavish obedience to rules, they will fail" (U.S. Grant).

Moreover, through the time and history of warfare there became obvious some paradoxical pattern, for the successful application of sound and feasible 'principles of war' on the battlefield does not necessary mean operational or strategic success, and overall victory in war in a long run. The winning framework on the operational and strategic levels can cause general failure (or simply not lead to ultimate victory) if it is not properly supported or exploited on the strategic (political) level. At the same time, a military defeat that resulted from not following the principles could still lead to a beneficial solution for the loser in the aftermath of the war. The solution might come from allies or from thoughtful political activity. The very outcomes of war were decided somewhere higher, on grand strategic or political levels, which gives doubt to the feasibility accepting 'some general principles,' which came from another time period or were drawn from different conditions. Moreover, when the perspective from specific warfare shifted to the larger view in terms of war in general, there appeared more

significant confusion of terms. This created doubt about the principles of warfare in terms of war as a process of achieving, restoring, or changing the status quo between the competing sides.

On the other hand, the contrary approach of the overemphasis upon the decisive battle appreciates the principles of war as a set of simple tools for a very particular application – when you need to defeat enemy capabilities. The paradox is that the destruction of the enemy armed forces does not necessary cause him to abandon his will to fight. It may cause him to abandon actual fighting for a particular time because of the defeat of his capabilities. However, he would resume fighting as soon as he was able to oppose his enemy again. In this case, he may not resume fighting in the open field. This is why, for Clausewitz, the results in war are never final, and the end of warfare does not always mean the end of war, because in general "war can become the origin of peace by the total victory of one side or another, by the sheer exhaustion of both, or—more often—because the conflict of aims that originally caused the war is resolved by the transformations that war itself brings about" (Luttwak, 2001, pp. 57-58). Therefore, for the warlike victory-oriented part there are basically two choices – a quick decisive victory or a war of attrition. In both cases the point of war is to destroy the ability to oppose. However, if warfare it is not concluded by the peace settlements through the negotiations, the 'exhaustion' of the will to fight in any form does not follow, and the war's outcomes remain unresolved.

> What my enemies call a general peace is my destruction. What I call peace is merely the rearmament of my enemies… (Napoleon's comment on the allied [Metternich's] peace proposals in 1813).

B.   THE HISTORICAL EVIDENCE OF THE DILEMMA

The classical principles of war originally emerged at the end of eighteenth century, during the 'era' of the Napoleonic wars. Napoleon's success on the battlefield attracted the attention of contemporary military theorists who wanted to study the essence of his 'winning framework,' develop, and adopt some special 'recipe' for military victory.

The great majority of soldiers who studied his [Napoleon] campaigns regarded them as acme of modern war; they tried to discover the secrets of the emperor's strategic thought and operational technique, less to understand what he had done than to prepare themselves for future wars… A Napoleonic tradition or school developed, which emphasized numerical strength, deep strategic penetration, and rapid concentration of force on the decisive point (Paret, 1986, p. 138).

But in general, this same pattern of 'the quest for victory' took place throughout the history of warfare. One of the first significant attempts to adopt the 'winning framework' of the past was made by Machiavelli in *The Art of War*. He tried, in some respects, to apply the Roman way of war to the military of Medieval Italy; but he was one among first to realize the complexity of doing this, for...

A purely mechanistic imitation of Roman tactical models was not enough; it had to be supplemented by a new military ethos, different from the reckless individual courage of the feudal knights and the selfish drive for personal enrichment of the mercenaries (Gunter E. Rothenberg, "Maurice of Nassau, Gustav Adolphus, Raimondo Montecuccoli, and the 'Military Revolution' of the Seventeenth Century," *Makers of Modern Strategy*, Peter Paret (Ed), 1986, p. 34).

The principles of war were often misinterpreted when they were attributed to some great captain. The main cause of this problem was that the 'formula of success' often contained more than 'the principles.' It also encompassed the organization of forces, their structure, tactical order, procedures of movements and engagements, all of which were predominantly the outcomes of geopolitical, social, economical, technological conditions of a particular place and time, and applied not only to the winner but to his enemies as well. Therefore, the main problem is not only a question of the simple applicability of old 'working' principles to the current conditions, but also the ability of their practitioners to recognize these differences in conditions, reconsider and adjust the principles, or even, perhaps, reshape the current conditions for the principles to fit…

Napoleon recognized the full potential of the revolution in war, discovered how its components could be made to work together – in Clausewitz's words, he corrected the technical imperfections of the innovations that

114

until then had limited their effectiveness – and by placing the resources of France in the service of the new system for a time gave it absolute superiority (Paret, 1986, pp. 126-27).

Thus, there were at least two kinds of blowback in the inappropriate adoption of the 'winning frameworks' of great captains of the past, Frederick and Napoleon in particular. In the case of the former, the main emphasis on a 'key for victory' was made by blindly copying Frederick's force formations, tactical order, and forms of maneuver on the battlefield. This was done with little respect to why, when, and how they had been originally implemented. In the case of the latter, the basic idea was to grasp Napoleon's practical methodology, which sounded great and simple. However, there was understanding of its context, and little attention was given to the great captain's warning that everything in war is very simple, but the main point is in the quality of its 'execution'…

> Napoleon's strategic plans … aimed at an overwhelming tactical decision, the major battle or battles that eliminated the opposing army. In his greatest campaigns the climatic battles emerged naturally from long and rapid advances deep into the enemy territory…[He] pushed a strong army so far forward that it could not be ignored but had to be fought…
>
> Although Napoleon sometimes stayed on the defensive until his opponent had committed and overextended himself, he preferred the attack. He disliked purely defensive battles; he knew the value of the initiative, and feared losing it…
>
> Among the reasons for Napoleon's long run of victories was the difficulty his opponents experienced in understanding his way of fighting and in devising effective responses (Paret, 1986, p. 131, p. 133, p. 134).

In general the main 'virtual' problem for great captains of the past was of a different kind. In the beginning of a war, if one was inferior or simply small, it was preferable and more effective to conduct *maneuver* warfare. But as the volume of war increased and the number of troops ultimately grew, limits were imposed on mobility and speed. On the other hand, the limited resources of the state that is conducting war also imposed certain limitations on the type of war it was 'able' to wage…

…The wars of Prussia, he [Frederick] says, should be 'short and lively'; Prussian generals should seek a speedy decision… A long war, he said, would exhaust the resources of Prussia and break down the 'admirable discipline' of the Prussian troops. From referring a short quick war it was no great distance to preferring either no war at all, or longer war of low intensity in expenditure of men and material. In any case the governing conditions were the same: the limited resources of the state, the dependence of armies on fixed magazines prepared beforehand, and the use of soldiers who, however well drilled, had no inward conviction to sustain them in times of trouble.

None of these conditions could Frederick overcome. He could not make Prussia a wealthy state; he could only economize its resources…

…The old king, in his last years, repeatedly observed that conditions had changed since his youth – that henceforth Prussia could fight only a war of position (Palmer, 1986, p. 102).

Although Frederick the Great remained the admirer of offensive, maneuver, initiative, and surprise in actions until his last days, he realized that waging war on a large scale would be impossible without developing a force as strong as possible. This "possible" thus, became the main problem concerning the balance between *mass* and *maneuver* in war. With a limited war there was relatively enough to conduct while maneuvering inferior forces. However, war fought for, for at the very least, regional dominance required massive armies.

To annihilate the enemy's main combat force was thus not Frederick's usual strategic objective. He indeed realized that, if battle is fought, the winner should attempt a destructive pursuit of the enemy, but destructive pursuit was not easy to a Frederician army…

So Frederician war became increasingly a war of position, the war of complex maneuver and subtle accumulation of small gains; leisurely and slow in its main outlines (though never in tactics), and quite different from the short sharp warfare recommended in 1746 (Palmer, 1986, p. 103).

Uneconomical massive kinetic warfare, although opposed to the classical principles of war, has often been applied as a countermeasure to a rival's maneuver approach.. Maneuver allows for more economy, but increases the dependence on the quality of execution. In the long run, the development of 'revolutionary' tactics from the

beginning has given certain advantages to the executer, but only so far as these new methods remained unexplored by their counterparts. When the antidotes for the new methods were found, continued war-waging with the same tactics became troublesome and needed further innovation…

> …by the time Napoleon decided on the invasion of Russia, his potential and actual opponents had began to benefit from the revolution in war. The absolute superiority Napoleon had enjoyed for some years imperceptibly declined.
>
> A point of view that earlier had helped him now began to work to his disadvantage. As a young man he had perceived the effectiveness of striking the core of his opponent's power. Once the enemy's main armies are defeated, and perhaps also once his administrative and economic centers were occupied, all else were likely to follow. Napoleon recognized as well that the surest means to reach these goals was to raise the strongest force possible and concentrate it on the essential objectives – two recognitions that actually identified some aspects of political and military reality, while – not incidentally – reflecting Napoleon's own intense psychological need for conquest and absolute domination (Paret, 1986, p. 136).

As long Napoleon's armies remained small and mobile, the complexities of logistics and communications were of a little value to them; however, when his armies grew bigger they became highly dependent upon them. On the other hand, the unity of military command and state authority embodied in a single person led to Napoleon's eventual loss of strategic control…

> Each age has its own strategy. The strategies of 1806, of 1870, of 1914 were the products of their own times, certainly paying some attention to the history, but primarily attempting with varying degrees of success to use and respond to the economic, social, technological, and political conditions of their day… Napoleon, by contrast, developed strategies that were attuned to the possibilities of his age, and for some years succeeded in exploiting them fully. As the conditions that he understood and had mastered began to change, sometimes in response to his own actions, his strategic concepts, too, had to change or become outdated (Paret, 1986, p. 141).

Therefore, the example of Napoleonic warfare is very valuable for study. It shows the appearance, development, and 'decline' of innovation in war in terms of its influence

on the overall balance in war and on its outcomes. The tactical and operational excellence of Napoleon allowed him to win a number of battles and create great Empire. The successful application of his principles of war helped him to be victorious on the battlefield, but his ill-advised final invasions), his strategic miscalculations, and his failure to adapt to evolving conditions and adjust his strategy accordingly cost him the state. So while he has always been considered brilliant militarily, he finally crashed politically…

> As a soldier of the Old Regime who survived and rose in the Revolution, he reflects in his education and experience the revolution in war, with the mixture of innovation and continuity. More accurately than others he recognized the military potential of the changes taking place, and brought them together into a system of unexcelled destructive power. For a time he rose above events, shaping and driving them forward, until in his later years he sank back again into the stream of general historical development and the long-range tendencies of Western civilization toward the future expansion of war (Paret, 1986, p. 142).

The Napoleonic concepts set the *massing* of armies as one of the main features of warfare at that time.,, The success of this feature led to the massive armies and highly 'echelonized' barbed wire trench warfare of WWI. This decreased the possible success of frontal attacks, but increased the importance of disturbing the enemy' rear. Therefore, logistics and communications were a vital part of the massive armies. The physical destruction of the enemy's armed forces became a relatively secondary target, as it became the outcome of the destruction of its rear. Innovation was needed to make this possible. That innovation came in the form of mechanized armored highly mobile forces that were able to penetrate the defensive lines. They were used to disturb and crush the enemy's lines of supply and communication.

C.   MASSING VERSUS MANEUVER

The gap between military *means* and political *ends* is a sub-product of the 'linear-logic' approach to warfare, which Luttwak named *attrition*. By *attrition* he actually meant exposing both the enemy and the industrial methods of war to *exhaustion*. Thus orientation of warfare upon the direct cumulative destruction of opposing armed forces

was 'achieved with superior firepower and material strength in general' (Luttwak, 2001, p. 113). For Luttwak there is a little operational art in pure *attrition* warfare, because the operational level in this type of warfare "is not more than the sum of its tactical parts" (Luttwak, 2001, p. 119). Thus, this pattern goes on up to a point that Michael Handel describes as the 'tacticization of strategy.' This is the same phenomenon that Andrew Krepinevich, addressing the U.S. strategy in Vietnam, called "a strategy of tactics" (quoted in Colin S. Gray, March 2006, p. 5). When the successful tactics substitute for strategy, it complicates the dialogue between the military and politics and creates a situation when "tactical excellence is quality wasted if it is not employed purposefully to advance political goals" (Colin S. Gray, March 2006, p. 13).

Moreover, the 'successful' *attrition mind-set* prevents from the transition to the other concepts of war. Thus the past technical, operational, strategical, and political stalemates were mostly conceptual stalemates, which are the stalemates of Luttwak's *attrition* (direct) concept…

> The greater the *attrition* [direct, kinetic] content of an overall style of war, the more will routinized [sic] techniques of target acquisition, attack, and resupply be sufficient, along with repetitive tactics, and the smaller is the opportunity—or need—to apply any operational method of war. Process replaces the art of war and all its ingenuities (Luttwak, 2001, p. 113).

The direct-approach perspective in warfare 'requires' and highly 'welcomes' an equally oriented and capable counterforce to have the utmost applicability of concepts, strategies, tactics, and mechanics-means (weaponry, carriers and equipment). That allows for action in the way the principles prescribe – have the objective, take the initiative, create the advantage, concentrate efforts on the primary, allocate minimum for the secondary, unify your efforts, make it secure, take the enemy unprepared, and minimize misunderstanding and confusion in your plans.

When the warfare becomes complicated, there appears the need for change. Both an increase in numbers or innovation – massing [force against force] and *maneuver* [force around force against weakness] respectively become the methods used to overcome the conceptual stalemate. The skillful combination of them can mutually reinforce their

119

effectiveness significantly. But nevertheless, there is an obvious paradoxical pattern. If the inferior (or progressive) side chooses to apply *maneuver* as the most effective way to change the balance of forces, and, in the long run, develop his success, he will face the urgent need to *mass* his forces to some extent if he desires to remain *offensive* at the 'decisive points'…

> The deep-penetration maneuver exploits … linear mentality by supplying facts to reinforce its misconceptions. The best attacking forces are of course massed opposite a few, narrow sectors of the front to fight their breakthrough battles, with the armored columns waiting behind them to start their own advance. But in addition there are at least weak forces opposite every sector of the front, all under orders to stage whatever small attacks they can, or at least to open fire as if they were about to attack (Luttwak, 2001, p. 126).

"The blitzkrieg effect: the disruption of the entire supporting structure of the defense, the forced evacuation of forward airbases and nuclear storage sites, and above all the unbalancing of command decisions, to misdirect any counterattacks and impose a disorganizing retreat" (Luttwak, 2001, p. 132) is the way out of the next stalemate of the classical 'linear-logic' kinetic warfare. Originally the 'blitzkrieg capabilities' were just a small portion of overall German military capabilities during WWII. They were designed to 'impose the disorganized retreat' and exploit it in the aftermath. However, the entire army was still 'kinetically'-oriented on the destruction of their enemies, while the 'blitzkrieg capabilities' simply allowed the Germans' *offensive* to break through the stalemate of WWI-type of warfare. These deep-penetration tactics were not German originally; they were British and Russian, although "Frederick the Great, invading Silesia without warning in 1740, gave Europe the taste of what later was to be called blitzkrieg" (Palmer, 1986, p. 96). The Germans were among the first to implement these tactics successfully on a large scale. But soon Allies recognized the effectiveness of the 'new' way of warfare and successfully adopted it for themselves. When warfare became equally 'maneuver-capable' for both sides, the quality of the maneuvers' execution and the resources available to sufficiently support operational and strategic maneuvers become very important. Maneuver warfare has remained prevalent, even with skill and large numbers on both sides.

Military excellence is very important in terms of short and decisive wars. However, in protracted wars when there is the possibility of countering sides adapting to each other and equalizing the military excellence to some extent, the ability to revolutionize the ways and means, or mobilize additional resources to effectively continue fighting becomes vital. Overall, success in war in general, from the one hand, is greatly dependent upon the relative 'economics' of war, which is the ability of the counterparts to change the balance of numbers. From the other hand, it also depends upon the 'evolution' of war, which is the ability of counterparts to change the balance of strength. Stalemate in war is highly undesirable because its outcomes can hardly be predicted and must be decided politically.

D.   THE INDIRECT APPROACH IN WARFARE

As illustrated, although the indirect approach in war, as Liddell Hart argued, should be used by 'the strong,' it has been highly desirable to and widely exploited by inferior counterparts in both regular war and asymmetrical conflict – through guerrilla warfare or insurgency. But in the latter case it is not war in the classical understanding, at least not from the perspective of the state's, occupation, or 'peacekeeping' authorities. It becomes instead the conflict resolution, pacification campaign, or 'operations other than war.' In this situation purely military options can only create the conditions necessary to further manage the problem, because, from the military perspective, conducting insurgency and countering it are two completely different things. "Insurgency advocates radical change, whereas counterinsurgency aims to preserve internal stability" (Collins, 2002, p. 182). They are not competing with each other in particular; they are competing with each other through the third party by establishing a suppressive (or favorable) regime with legislative, diplomatic or political (negotiations) measures.

> Brutal tactics that squash the symptoms of insurrection but leave noxious causes intact may suppress rebellion for long periods, but strategists who hope to heal national wounds employ armed force primarily as a shield behind which benevolent programs give disaffected people genuine prospects for liberty, justice, security, and prosperity (Collins, 2002, p. 182).

And because these two approaches are allocated, in particular, in two relatively different dimensions, they are reciprocal in their overall outcomes. In the long run they can either benefit each other, or, in the case of ill-organized management, undermine all separate and common efforts.

The other way to approach war indirectly is to use a multidimensional environment for fighting. In addition to the tactical, operational, strategic, and grand strategic levels of warfare, presented in his book on *Strategy* (2001) Luttwak, offered one more level in warfare. It is a favorable and familiar dimension that the military has tried to master for a long time – the technical level. This reasonable adjustment in dimensions considers some 'virtual' competition of means' capabilities – weaponry and equipment – which was often missed in other considerations. In his analysis, Luttwak introduced the separate notion of the technical surprise coupled with tactical, operational and strategical ones. This means there is significant innovation in overall capabilities, not only in weaponry, but also in: delivery vehicles (fast, long-distance capable, stealth, multi-environmental, etc.); aiming/ surveillance/ reconnaissance appliances (thermal, laser, infrared, audio, video, aerial, satellite, etc.); communication, control and information management devices; and deception tools. This dimension has been successfully exploited to the extent that "politicians are still the captains of the ship of state, and military men are its deck crew, but now there are scientists and engineers in charge of the engine room, and they propel the ship toward unknown destination" (Luttwak, 2001, p. 102). When the military thinkers recently introduced the new level of warfare – informational, the main reaction of the military was to gain dominance in this new dimension.

The 'new' principles for the Information Age are partly regarded as gaining the *economy of force* through the 'information'-balance of knowledge and ignorance. This shifts the priority in action between dislocation and confrontation, distribution and concentration, opportunity and reaction, activity and security, option acceleration and objective, and command and anarchy. Leonhard's introduction of these principles is an attempt to extend the possibility of managing of the information domain for the purpose of an 'overwhelming' victory. And as Chris H. Gray pointed out about other recent

attempts of military theorists to introduce new concepts to the general military thought, "for them, as for most war theorists, the goal is to improve war, not to understand war itself in the context of contemporary society" (Chris H. Gray, *Postmodern War: The new Politics of Conflict*, New York: The Guilford Press, 1997, p. 3).

> Despite the revolutionary nature of Leonhard's principles, moreover, they still pertain to battle more than to war (Antulio J. Echevarria II, "Principles of War or Principles of Battle?" *Rethinking the Principles of War*, Anthony D. McIvor (ed.), Annapolis, MD: Naval Institute Press, 2005, p. 63).

Thus, stalemate in this new 'habitat' is quite possible and is just a matter of time, as Michael Handel pointed out, until we again reach a conceptual stalemate:

> Once a conventional high-tech war is fought between technologically equal opponents, the pace and accuracy of the destructive power wield will increase, but their advanced technological capabilities will not give either side any particular advantage.

> … While the outward shape and material dimensions of war may shift continuously, the essence of war remains unchanged. War will thus remain a dynamic and reciprocal activity in which various advantages are gained and lost as both sides adapt to successful challenges (Handel, 2005, p. xxvi).

Therefore, it is more paradoxical that although most tactical innovations were made due to the principles, the particular conditions of warfare in time have made these innovations common and regular. Thus it can be concluded that the principles did not lead to innovations, but rather they inspired the quest for them, thus making warfare more dynamic, because "any formula for military success invites potential enemies to emulate, to evade, and to offset" (Colin S. Gray, April 2002, p. 32).

E.   CONCLUSION

The initial point of codifying of the classical principles of war was to have them in a complete set, because separately each of them can be interpreted and applied in any regard without regard to their mutual interdependence. That is why J.F.C. Fuller subordinated war to the ***Law of Economy***, from which came two concepts of war: one of

convergence and another of *interaction*. These two concepts were subdivided into separate principles: the former into *mass/ objective/ unity/ simplicity* and the latter into *maneuver/ offensive/ surprise/ security*. There were a lot of attempts, in 'the quest for victory,' to adopt them into different kinds and levels of warfare, but their proper application to operational, strategic, and political concepts needs to be carefully thought through.

The purpose of the thesis is not to neglect the classical principles of war in general, and thus undermine the very notion of the competent war-waging. Rather it is to illustrate the great concern regarding the application of the classical principles to the current conditions of war as they are, not as they have been reconsidered and properly reinterpreted in terms of a particular time and place. Reducing the winning frameworks of the great warriors to a simple checklist, without the thoughtful reconsideration of them in terms of the differences in environmental features has generally caused the sound principles to fail. They failed when relative antidotes were found to fight the new ways and means that they had generated.. They also failed when the beneficiaries of these principles refused to change themselves in the face of an unfavorably changing reality.

> Military strategists are just beginning to connect chaos and complexity theories with war, which is inherently chaotic, complex, dynamic, and nonlinear. Concerted applications of those intriguing intellectual tools might enable current and future researches to attack crucial problems from radically different directions than their predecessors. Fresh insights conceivably could create conceptual 'force multipliers' that consistently rather than haphazardly vest military formations with combat capabilities equal to more than the sum of their parts… (Collins, 2002, p. 261).

Following the point of Collins above, further research can be conducted to analyze the subject from the perspective of an alternative social science. As long as we consider war, in the highest level of its expression, an integral part of a statecraft and an extension of the state's policies and as long as the vast majority of wars are waged by states against other states with a similar deep involvement of all its institutions in the processes of war's preparation, waging, and consequences, then we must view the highest essence of war as the greatest dramatic instance of interaction. It is closely related to politics, as it is all about authority, power and conflict. Therefore, because of the extreme

complexity of the very issue of war, the possible theoretical basics might be very close to those of political science. Political science deals with the highest human activity – the use of power, which subordinates to itself the rest of the social state's life. Since war is the most extreme way to establish authority, change the balance of power, or solve a conflict, we must continue the quest for the 'better peace'…

> There is no panacea for peace that can be written out in a formula like a doctor's prescription. But one can set down a series of practical points – elementary principles drawn from the sum of human experience in all times. Study war, and learn from its history. Keep strong if possible. In any case, be cool. Have unlimited patience. Never corner an opponent, and always assist him to save his face. Put yourself in his shoes – so as to see things through his eyes. Avoid self-righteousness like the devil – nothing is so-blinding. Cure yourself of two commonly fatal delusions – the idea of victory and the idea that war cannot be limited.
>
> These points were all made, explicitly or implicitly, in the earliest known book on the problem of war and peace – Sun Tzu's 500 B.C. (Liddell Hart, 1960, pp. 247-248).

THIS PAGE INTENTIONALLY LEFT BLANK

BIBLIOGRAPHY

Alger, J.I. (1982). *The Quest for Victory: The History of the Principles of War.* Westport, CT: Greenwood Press.

Arquilla, J. & Ronfeldt, D. (1997). Cyberwar is coming! In Arquilla, J. & Ronfeldt, D. (Eds), *In Athena's Camp: Preparing for Conflict in the Information Age* (pp. 23-59). Retrieved March 9, 2009, from RAND Web site: http://www.rand.org/pubs/monograph_reports/MR880/MR880.ch2.pdf

Arquilla, J. & Ronfeldt, D. (2000). *Swarming and the Future of Conflict*. Retrieved March 9, 2009, from RAND Web site: http://www.rand.org/pubs/documented_briefings/2005/RAND_DB311.pdf

Bartholomees, J. B. (2008, June). A Survey of the Theory of Strategy. *U.S. Army War College Guide to National Security Issues*, Vol. I: Theory of War and Strategy, 13-41. Retrieved February 20, 2009, from Strategic Studies Institute of U.S. Army War College Web site: http://www.strategicstudiesinstitute.army.mil/pubs/download.cfm?q=870

Boot, M. (2002). *The Savage Wars of Peace: Small Wars and the Rise of American Power.* New York: Basic Books.

Brodie, B. (1959). *Strategy in the Missile Age*. Princeton, NJ: Princeton University Press.

von Clausewitz, C. (1989, c1832). *On War.* Howard, M. & Paret, P. (Trans & Eds). Princeton, NJ: Princeton University Press.

Collins, J. M. (2002). *Military Strategy: Principles, Practices, and historical Perspectives*. Washington, D.C.: Brassey's Inc.

Corum, J. S. (1992). *The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform*. University Press of Kansas.

van Creveld, M. (1991). *The Transformation of War*. New York: The Free Press.

Danchev, A. (1999, c1998). *Alchemist of War: the Life of Basil Liddell Hart*. London: Phoenix Giant.

Dunn, K. A. & Staudenmaier, W. O. (Eds) (1984). *Military Strategy in Transition: Defense and Deterrence in the 1980s*. Boulder, CO: Westview Press.

Fuller, J. F. C. (1944, c1943). *Armored Warfare*. Habsburg, PA: The Military Service Publishing Company.

Fuller, J. F.C. (1993, c1926). *The Foundations of the Science of War*. Fort Leavenworth, KS: U.S. Army Command and General Staff College Press.

Gat, A. (2001). *A History of Military Thought: From the Enlightenment to the Cold War*. Oxford: University Press.

Gray, C. H. (1997). *Postmodern War: The New Politics of Conflict*. New York: The Guilford Press.

Gray, C. S. (2006, March). Irregular enemies and the essence of strategy: Can the American way of war adapt? Retrieved May 25, 2009, from Strategic Studies Institute of U.S. Army War College Web site: http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubid=650

Gray, C. S. (2002, April). Defining and achieving decisive victory. Retrieved May 25, 2009, from Strategic Studies Institute of U.S. Army War College Web site: http://www.strategicstudiesinstitute.army.mil/pubs/display.cfm?pubid=272

Handel, M. I. (2005, c1992). *Masters of War: Classical Strategic Thought*. London: Routledge.

Heilbrunn, O. (1965). *Conventional Warfare in the Nuclear Age*. London: George Allen.

Howard, M. E. (Ed) (1967, c1965). The Theory and Practice of War. New York: Frederick A. Praeger.

Howard, M. E. (1991). *The Lessons of History*. New Heaven, CT: Yale University Press.

Isaak, A. C. (1981). *Scope and Methods of Political Science: An Introduction to the Methodology of Political Inquiry*. Homewood, IL: The Dorsey Press.

Joint Operations Doctrine (JP 3-0, 13 February 2008). Retrieved December 19, 2008, from the Defense Technical Information Center Web site: http://www.dtic.mil/doctrine/jel/new_pubs/jp3_0.pdf

de Jomini, A. H. (1996, c1838). *The Art of War*. London: Greenhill Books.

Kaplan, F. M. (1991). *The Wizards of Armageddon*. Stanford, CA: Stanford University Press.

Kane, T. M. (2007). *Ancient China on Postmodern War: Enduring ideas from the Chinese strategic tradition*. London: Routledge.

Krepinevich, A. F. (1986). *The Army and Vietnam*. Baltimore, MD: The John Hopkins University Press.

Krishnan, A. (2008). *War as Business: Technological Change and Military Service Contracting*. Aldershot, England; Burlington, VT: Ashgate.

Leonhard, R. R. (1998). *The Principles of War for the Information Age*. Novato, CA: Presidio Press.

Liddell Hart, B. H. (1960). *Deterrent or Defense*. New York: Frederick A. Praeger.

Liddell Hart, B. H. (1964, c1930). *The Real War: 1914-1918*. Boston: Little, Brown and Co.

Liddell Hart, B. H. (1968, c1954). *Strategy*. New York: Frederick A. Praeger.

Luttwak, E. N. (1986). *On the Meaning of Victory: Essays on Strategy*. New York: Simon and Schuster.

Luttwak, E. N. (2001, c1987). *Strategy: The Logic of War and Peace*. Cambridge, MA: The Belknap Press of Harvard University Press.

Machiavelli, N. (1978, c1521). *The Art of War*. Farneworth, E. (Trans). Indianapolis, IN: Bobbs-Merrill.

Maoz, Z. (1990). *Paradoxes of War: On the Art of National Self-Entrapment*. Boston: Unwin Hyman.

McIvor, A. D. (Ed) (2005). *Rethinking the Principles of War*. Annapolis, MD: Naval Institute Press.

McNeilly, M. (2001). *Sun Tzu and Art of Modern Warfare*. Oxford: University Press.

Murray, W & Millett, A. R. (Eds) (1996). *Military Innovation in the Interwar Period*. Cambridge: Cambridge University Press.

Musashi, M. (1974, c1645). *A Book of Five Rings*. Harris, V. (Trans). Woodstock, NY: The Overlook Press.

Newell, C. R. (1991). *The Framework of Operational Warfare*. London: Routledge.

Paret, P. (Ed) (1986). *Makers of Modern Strategy: from Machiavelli to the Nuclear Age*. Princeton: Princeton University Press.

Phillips, T. R. (Ed) (1955). *Roots of Strategy*. Harrisburg, PA: The Military Service Publishing Company.

Posen, B. R. (1984). *The Sources of Military Doctrine: France, Britain, and Germany Between the World Wars*. Ithaca, NY: Cornell University Press.

Rommel, E. (1979, c1937). *Attacks*. Provo, UT: Athena Press, Inc.

Sawyer, R. D. (Ed) (1993). *The Seven Military Classics of the Ancient China*. Boulder,
    CO: Westview Press.

Sorensen, R. A. (1998, March). Self-strengthening Empathy. *Philosophy and
    Phenomenological Research*, vol.58, no.1, 75-98. Retrieved March 11, 2009,
    from JSTOR Web site: http://www.jstor.org/stable/2653631

Sun Tzu (1963, c500 B.C.). *The Art of War*. Griffith, S. B. (Trans). Oxford: University
    Press.

The Small Wars Manual (1940, c1935). Retrieved February 20, 2009, from Small Wars
    Center of Excellence of Marine Corps Warfighting Laboratory Wargaming
    Division Web site: http://www.smallwars.quantico.usmc.mil/sw_manual.asp

Weigley, R. F. (1977, c1973). *The American Way of War: A History of United States
    Military Strategy and Policy*. Bloomington: Indiana University Press.

INITIAL DISTRIBUTION LIST

1.   Defense Technical Information Center
        Ft. Belvoir, Virginia

2.   Dudley Knox Library
        Naval Postgraduate School
        Monterey, California